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ABSTRACT

The methods and process of desegregation between 1968 and 1976 were analyzed for 52 large school districts in this case survey report. The first section presents the research design in which the case survey method and the selection of 52 districts are considered. The second section includes a detailed look at the various desegregation techniques employed and a preliminary assessment of their effectiveness. A multivariate analysis is presented in section three. An analysis of white flight is presented in section four, and section five discusses findings and implications of the study. The report drew the following conclusions about desegregation success: (1) Federal coercion reduced racial isolation; (2) larger districts achieved less racial balance than smaller districts; (3) southern districts had greater success than those outside the south; (4) countywide districts improved racial balance more than non-countywide districts; (5) support from school officials helped achieve desegregation; and (6) hiring new superintendents tended to improve prospects for desegregation success. Included in this report are five appendices: (1) the form for the case survey instrument; (2) a glossary of desegregation terms; (3) additional comments about survey reliability; (4) case profiles; and (5) selected school district characteristics. (Author/ML)

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A Report to the
National Institute of Education

ASSESSING THE PROGRESS OF LARGE CITY SCHOOL DESEGREGATION: A CASE SURVEY APPROACH

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November 1981

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FINAL REPORT

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Assessing the Progress of Large City School Desegregation: A Case Survey Approach

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ABSTRACT

Using the case survey method, which allows the researcher to quantify and aggregate case study literature, the process of school desegregation occurring between 1968 and 1976 was analyzed for 52 large U.S. school districts. A preliminary examination of desegregation techniques revealed that among elementary schools the combination of pairing and clustering with rezoning proved most successful in reducing racial isolation (operationalized as a change in the index of dissimilarity). For secondary schools the most effective technique was rezoning. These two techniques were associated, in the bivariate case, with the lowest amount of white enrollment loss as well. A multiple regression analysis also showed the most effective desegregation technique to be of some importance (although not statistically significant) in achieving desegregation success when various external, community, and district level forces were taken into account. In the multivariate case, the specific technique was of greater import at the elementary than the secondary level. Other features of the desegregation process, especially support by school officials, were important predictors of desegregation success as well, although the most powerful forces were federal coercion (positive) and size of district (negative). A multivariate analysis of white enrollment change for these 52 districts confirmed recent research that school desegregation does produce a significant one-time decline in white student enrollment. The most important predictor of white student withdrawal was percentage black in the school system. The research concludes that desegregation process variables are important contributors to success, and certain desegregation techniques may work better than others.

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I owe a debt to two colleagues who were willing to take the time to review the case survey instrument found in Appendix A--Professor Michael R. Fitzgerald, Bureau of Public Administration and Department of Political Science, University of Tennessee (Knoxville), and Dr. Joe M. Garrison, head of the Desegregation Consultative Center, University of Oklahoma. Here I might also note that the idea of doing a study such as this originated with Professor Richard Bingham, Center for Urban Research and Department of Political Science, University of Wisconsin (Milwaukee).

My thanks go to all those school officials who took the time and trouble to respond to our request for help in locating written material on school desegregation and who, on several occasions, responded to our telephone inquiries for additional information.

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David R. Morgan

TABLE OF CONTENTS

page

Acknowledgments

Introduction 1

References 8

I. RESEARCH DESIGN 9

Case Survey Method (CSM) 9
Dependent and Independent Variables 20
Methods 27
Notes 29
References 31

II. A PRELIMINARY ASSESSMENT OF DESEGREGATION TECHNIQUES 33

Desegregation Techniques: A View From the Courts 33
Strategies, Desegregation Success, and White Flight:
A Bivariate Analysis 40
Busing, Desegregation Success, and White Flight 49
Summary 53
Notes 55
References 57

III. A MULTIVARIATE ANALYSIS OF DESEGREGATION SUCCESS 58

The Multivariate Analysis 66
Summary 82
Notes 85
References 89

IV. THE EFFECTS OF EXTERNAL, SCHOOL DISTRICT, AND DESEGREGATION PROCESS INFLUENCES ON WHITE ENROLLMENT CHANGE 91

Research Issues Affecting the Analysis of White Flight 92
Explaining White Enrollment Decline 98
Summary 112
Notes 115
References 119

V. CONCLUSION 121

References 131

Appendix A--Case Survey Instrument 132
Appendix B--Glossary of Desegregation Terms 146
Appendix C--Additional Comments About Intercoder Reliability . 149
Appendix D--Year Prior to and Year of Major Desegregation
Effort by Grade Level 154
Appendix E--Case Profiles and Selected School District Characteristics 156
References for Case Profiles 211
Selected School District Characteristics: 1968,
1970, 1972, 1974, 1976, 1968-1976 Change . . . 220

ASSESSING THE PROGRESS OF LARGE CITY SCHOOL DESEGREGATION: A CASE SURVEY APPROACH

Introduction

Over 25 years have passed since the second Brown decision, but efforts to desegregate American schools are not over. Considerable progress has certainly been made in most southern communities, but much remains to be done elsewhere. Only recently has judicial attention begun to turn from rural southern districts to urban districts including those in the North and West. As the focus shifts to larger cities, regardless of region, efforts to devise workable desegregation solutions become more complex and time consuming. Initial desegregation plans are often woefully inadequate. The courts and HEW increasingly become drawn into the picture as more drastic remedies are required to produce significant results. Plans are proposed, consultants retained, community groups are mobilized, and federal funds are obtained to ease the burden as school districts labor with the desegregation effort.

But as a recent U.S. Commission on Civil Rights (1979: ii) report indicates, segregation in many school districts "remains at discouragingly high levels." The Commission's survey of 47 districts reveals that almost 4.9 million minority children still attend schools considered at least moderately segregated. This represents 47 percent of all minority pupils. The problem is much worse in some areas than in others, of course. Sixty-five percent of all minority pupils in the northeast and 68 percent of all minority students in the north central region are enrolled in at least moderately segregated school districts. Clearly then desegregation efforts are working better in some places than in others. This suggests that more imagination and greater thought must go into devising plans and proposals that will assure some measure of success. Such an effort is not only appropriate outside the South, but the report of the Office of Civil Rights (1979: 20) notes "noticeable" segregation remains even in those areas (e.g., southeast region) where segregation levels are lowest.

The problem is no longer to establish that constitutional rights are being violated by the continued existence of segregated schools. Rather, as Hawley and Rist (1977: 412) so aptly put it the greater difficulty is in " . . . devising a remedy accessible and acceptable to both the courts and policy makers." The key issue today is to determine what combination of strategies and techniques are most likely to produce the desired levels of desegregation at an acceptable cost. School policy makers must obey the law, but this does not require that they operate within a strategic straightjacket. A number of options and alternative proposals must be considered. Officials must recognize, of course, that certain parameters exist within which a desegregation plan must operate--the size and geographic location of the minority population, the total enrollment of the district, the geographic area encompassed by the district, the location and condition of school buildings, the available financial resources, and so on. But even within the confines of a plan that is workable and equitable and takes account of local conditions, considerable latitude and flexibility remains available to local officials.

But how are the courts and local officials to know what remedies might function best in their community? Most officials lack an awareness on any comprehensive basis of what has worked well in other, perhaps similar, locales. Information about how desegregation efforts have worked across the country would seem to be a vital source of guidance and assistance for officials at all levels who are continuing to struggle with the difficult task of devising equitable and effective desegregation proposals.

This is not to suggest that school desegregation has not been widely studied. To the contrary, a large volume of research on this vital process exists. It is the usefulness of this material in its present form that remains in doubt. As one federal district court judge has said, "much of the current research replies to precise policy based questions with the ambiguity of a Delphic oracle . . ." (quoted in Hawley and Rist, 1977: 414). Continuing efforts must be forthcoming to remedy this informational problem. The research reported here is intended to contribute to that end.

The particular thrust of this study involves the use of a recently developed methodology--the case survey approach--to analyze the school desegregation efforts of a number of large U.S. public schools. This methodology recognizes that case studies, while containing a wealth of useful facts, are by themselves limited as a guide to action. The inability to generalize from a single locale constitutes their major drawback. The case survey, on the other hand, permits the extraction of relevant material from a group of cases in a reliable and replicable manner. For this study, the approach requires a researcher/analyst to assemble the available material on school desegregation for as many large districts as possible. The procedure then requires the analyst to answer the same set of questions using a structured instrument for each case study. The questions are closed-ended so that the answers can be quantified and systematically analyzed. While no check can be made on the accuracy of the original case study, the reliability of the analyst-reader's responses can be determined by using another analyst and calculating measures of intercoder reliability. The case survey method has been used to study local government decentralization (Yin and Yates, 1975) and the innovation process among state and local governments (Yin, Heald, and Vogel, 1977). More details will be provided on the case survey approach in the research design section of this paper.

The analysis to follow, while deriving certain vital information from case literature, will be primarily aggregate in nature. In effect, selected data generated through case analysis will be incorporated in multivatiate equations to help account for changes in the level of school desegregation among a group of large U.S. school districts. Previous comparative, quantitative analysis of school desegregation has shown that the process is substantially affected by at least three basic influences--the community environment (e.g., school district size, percentage black enrollment), certain features of the school system itself (e.g., superintendent longevity), and federal intervention (e.g., court orders and HEW involvement) (see Morgan and Fitzgerald, 1980). Most such aggregate research, however, has not been able to capture what are likely to be important events and influences more immediately affecting the actual desegregation effort itself. For example, what about attitudes and behavior of the school board and superintendent? Might these not have a considerable impact on the success of the desegregation effort? Or, what about other groups in the community, either elite groups or those who may have organized to oppose desegregation? What effect might they have? Finally, very little has been done regarding the potential consequences of using certain desegregation techniques as opposed to others. For instance, does it matter whether a district decides to use (or a court orders) magnet schools as opposed to a redistricting or rezoning of schools? In short, as Rossell (1978: 158) has put it: "Most comparative studies . . . [provide] little or no information as to which features of a desegregation plan can be manipulated in order to minimize negative effects and maximize positive effects." Rossell (1978: 162-177) also insists that community attitudes and perhaps protest actions and leadership statements can affect desegregation and subsequent white enrollment loss. While influences such as these do not appear in the typical aggregate analysis, the case survey method permits the extraction and quantification of such effects. Indeed, the research to follow will include several variables derived from the case literature to represent various local level forces impinging upon the desegregation process. A particular emphasis will be placed on the effects of various desegregation techniques. These will be included along with other more commonly used measures to determine the relative consequence of certain process variables when other influences, such as external forces, are taken into account.

In addition to incorporating the effects of the desegregation process itself in an analysis of desegregation success, information from the case survey approach will be used to examine white student enrollment change. In effect, a second basic multivariate analysis will be performed using change in white enrollment (i.e., "white flight") as a dependent variable.

Again this research will benefit from having certain data from the case literature ordinarily not available to others doing aggregate research on white flight. It will thus be possible to determine, for example, the degree to which such things as community resistance and school officials' attitudes may affect enrollment loss, as a result of a desegregation effort, when other important influences are considered.

The 52 school districts included in this study represent those for which written information was available among the total of 261 districts with a 1976 enrollment of 20,000 or more students. Two other limitations were imposed on the selection process. First, the desegregation effort must have taken place between the years 1968 and 1976. The measure of school desegregation used in the study is limited to that period. Second, the district must have had a minimum minority enrollment of 10 percent during at least part of the 1968-1976 time frame. The process of selecting the 52 districts will be discussed in more detail in the methodology section.

The study has been divided into five sections. The first section presents the research design in which the case-survey method and the selection of the 52 districts are considered. The second section includes a detailed look at the various desegregation techniques employed by the 52 districts along with a preliminary assessment of their effectiveness. Section three presents a multivariate analysis of the desegregation process. The fourth section contains the analysis of white flight. In the conclusion the findings and implications of the study are summarized and discussed. A lengthy appendix (Appendix E) is also included that contains a separate profile of the desegregation process for each of the 52 districts along with selected characteristics of each district for even-numbered years between 1968 and 1976 (e.g., total enrollment, percentage minority, school desegregation index, and other measures pertaining to desegregation).

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I. RESEARCH DESIGN

The analytic goal of this research project is to systematically examine the impact of four types of independent variables--external influences, school district characteristics, desegregation process influences, and desegregation techniques--on two school desegregation outcomes: the success of school districts in ending racial isolation (desegregation success) and white enrollment decline (generally referred to as "white flight"). This section outlines the research design developed to pursue this basic goal. The section is organized into three parts. Part one describes the procedures by which the data were gathered. Part two presents the independent and dependent variables used in the analysis. Finally, part three discusses the statistical methods employed to analyze the data.

Case Survey Method (CSM)

In general, previous studies of school desegregation have used either an aggregate, comparative research design involving a large number of cities or have taken the form of case studies. While the former approach allows for the use of various bivariate and multivariate statistical techniques and enhances generalizability of research findings, it often masks or fails to account for unique or unusual conditions found in individual cities' desegregation efforts. For example, most aggregate school desegregation studies do not employ as independent variables what might be referred to as "desegregation process variables"--e.g., superintendent and school board support, desegregation resistance, citizen participation, elite support, etc. In contrast, case studies usually devote considerable attention to the politics and process of school desegregation, but extreme caution must be taken in generalizing research findings across cases (see Meier and Brudney, 1981: 133).

This research project employs a relatively new technique called the case survey method, which combines certain features of aggregate analysis and case studies. The central purpose of the case survey method is to aggregate and generalize across a number of case studies (McClintock, et al., 1979: 626). The approach requires that an analyst-reader record information about individual cities' desegregation efforts on a closed-ended questionnaire (see Appendix A) so that these experiences can be quantified, aggregated, and subjected to systematic analysis. In one sense, the case survey approach can be viewed as a compromise methodology which facilitates the comparative (quantitative) analysis of location-specific case study findings.

Since the case survey methodology is well documented elsewhere (see Lucus, 1974; Yin and Yates, 1975; Yin, Bingham, and Heald, 1976; Yin, Heald, and Vogel, 1977), only the more salient features (i.e., advantages, limitations, and decision rules) of the approach will be highlighted here.

Advantages

The principal advantage to be gained through the use of the CSM is that the richness of detail found in most studies can be captured and systematically converted into quantitative data. Other advantages of the method include:

- the CSM forces the research analyst to establish clear decision rules concerning the quality, inclusion, and exclusion of cases to be analyzed (Yin, Bingham, and Heald, 1976);
- the CSM provides a framework by which a conceptually related but methodologically disparate set of cases can be systematically analyzed (McClintock, et al., 1979);
- the CSM is a relatively inexpensive way to aggregate existing research (Lucus, 1974).

Limitations

While the case survey approach offers considerable promise as a method for systematically examining a case study literature, the use of case studies as a source of information poses several problems. Three such problems merit special attention.

First, the accuracy and validity of findings reported in case studies cannot be verified and only partially checked. Second, those studies that define a case study literature may represent "a nonrandom sample of observations of the phenomena under study" (Lucus, 1974: v). Finally, analyst-readers' responses to items on the case survey instrument may be inadvertently biased owing to misunderstanding of the concepts being operationalized.

To address these potential problems and as a prerequisite to using the CSM, a set of decision rules must be developed to insure a rigorous case survey.

Decision Rules

Decision rules are of two general types: (1) rules to aid in the selection of and search for case studies; and (2) rules detailing concept specification and checklist reliability (Lucus, 1974: 6).

In the present study, a four-point set of decision rules were established for case study selection:

(1) A district's desegregation effort had to be documented in a published or unpublished report (e.g., book, journal article, Civil Rights Commission report, court case). Expert testimonials or interviews with local officials could not serve as the primary data source.

(2) The major desegregation effort of a district must have occurred between 1968 and 1976. (Data for the desegregation index and white school enrollment employed as dependent variables in the study are limited to this period.)

(3) The total school enrollment of the district had to exceed 20,000 students. The intent of the project was to include only "large" districts on the basis that more published information would be available than for small districts. In addition, research has shown that size of district may affect the desegregation process. Imposing a size limit then precludes a perhaps incongruous comparison between a group of very large and very small districts.

(4) The minority percentage in the school system had to equal or be greater than 10 percent for at least one of the years between 1968-1976. Essentially, the 10 percent minimum was established on the assumption that districts with a very small proportion minority are not likely to face the same issues and problems in desegregating that confront other districts.

Based on these case inclusion criteria, an exhaustive search for written material on large district desegregation, both published and unpublished, was undertaken. In addition to writing the 261 school districts with 1976 school enrollments exceeding 20,000, the following sources and agencies were consulted or solicited for research material:

1. ERIC documents
2. dissertation abstracts
3. court cases
4. National Institute of Education (NIE) library
5. regional offices of the U.S. Commission on Civil Rights (USCCR)
6. state departments of education
7. state offices of human rights
8. various unpublished reports of the USCCR
9. all university-based Desegregation Assistance Centers

Written contacts with school districts, in particular, resulted in identifying various individuals within or without the school system that might have useful information. Thus a number of telephone calls were placed to various people such as directors of transportation for school districts, district lawyers, and other academic-based researchers and research organizations.[1] Such contacts sometimes did produce written material (e.g., unpublished reports) that otherwise would not have been available.

In total, the search effort resulted in identifying 52 usable case studies.[2] These 52 cases represent the overwhelming majority of documented desegregation efforts conforming to the four-point criteria outlined above. However, since it is possible that a few cases might have been inadvertently overlooked, we prefer to consider the 52 cases as a sample rather than a population.

The second general type of decision rule delineates concept specification and checklist reliability. With respect to concept specification, it is important to remember that the case survey approach, like any other research method, is merely a tool designed to aid in the collection of data. The method itself is not a substitute for theory. Or, as Lucus (1974: 19) states:

> The greatest strengths and the fundamental weaknesses of the case survey method are the same: the almost infinite flexibility of the theories and concepts that can be studied . . . In practice, one cannot ask thousands upon thousands of questions of each case history, hoping to stumble across these mysterious factors that have a decisive influence. Some sense of theory is essential to bringing the inquiry into focus.

A survey of previous school desegregation research findings suggests that four classes of variables may influence school desegregation success: (1) school district characteristics such as percent minority in the district and school district size; (2) external pressure in the form of court or HEW coercion; (3) desegregation process variables such as citizen participation, elite support, superintendent and school board support; and (4) specific desegregation techniques or strategies by districts.

Unlike the first class of variables, school district characteristics, concepts such as external pressure, citizen participation, elite support, and desegregation strategies are much more elusive and, therefore, more difficult to operationalize. Moreover, the effects of many of these variables on school desegregation, with the exception of external pressure and district characteristics are for the most part not tested in previous aggregate studies. Thus, the collection of desegregation process indicators became the central focus of the case survey instrument.

In preparing the school desegregation case survey instrument, technically called a "checklist," considerable time and thought was allocated to the questions to be included. Finally, after the original draft instrument was reviewed by a desegregation assistance center director and an outside consultant as well as tested by an analyst-reader, a final case survey questionnaire was decided upon.

The instrument was divided into four sections, with each section seeking a specific type of information. The four sections include:

(1) desegregation plan background questions (see Appendix A, questions 10-15b);

(2) questions concerning court involvement in the desegregation process (see Appendix A, questions 16-17);

(3) questions seeking information about the desegregation plan techniques employed by districts (see Appendix A, questions 18-47);

(4) desegregation plan implementation questions (see Appendix A, questions 48-77).

To insure that analyst-readers understood the concepts being tapped by the various questions, a roundtable discussion was held in which each question was reviewed, discussed, and agreement on the meaning was reached. In addition, the two analyst-readers in charge of completing the checklists were instructed to each complete the same three case surveys, discuss answers, and resolve differences in the meaning of questions.[3]

Despite these preliminary procedures, as the project progressed additional clarification was required. As these occasions arose, written memos were prepared and distributed to the analyst-readers (see Exhibits A, B, and C), and a glossary of desegregation terms was prepared (see Appendix B). In short, every effort was made to familiarize the analyst-readers with the purpose and use of the CSM. The checklists as completed by the coders, however, were not accepted at face value. The CSM requires checklist reliability.

Reliability can be defined as "the degree to which separate, independent measurements or judgments of the same phenomena agree with each other" (Yin and Yates, 1975). The validity of the data as well as the ability to generalize the results of the study are directly related to the level of reliability (North, et al., 1963).

For purposes here the measure of reliability is the degree of inter-analyst agreement. The following steps were followed in measuring inter-analyst agreement.

Step 1. In completing the checklists the coders were required to rank the "level-of-confidence" of their response to each questionnaire item as "sure," "not sure," or "impossible to answer."

EXHIBIT A

CASE SURVEY INSTRUMENT:
DEFINITIONS OF SELECTED CONCEPTS/TERMS

Magnet-only plan. An essentially voluntary program under which parents may choose to send their children to a citywide or areawide school offering a special curriculum or educational program. Such magnet schools appear to be closely related to an open enrollment approach, since no mandatory reassignment is involved. Magnet-only plans thus depend on making such schools sufficiently attractive to induce parents to voluntarily leave their segregated neighborhood schools.

Magnet-mandatory plan. This form of magnet school is not optional. The choice is not between a segregated neighborhood school and a desegregated magnet school. Parental choices are: (1) leave the school system, (2) accept the forced reassignment to a desegregated school, or (3) choose a desegregated magnet school (Rossell, 1979).

EXHIBIT B

CASE SURVEY INSTRUMENT: GUIDANCE FOR Q. 25-27 ON BUSING

25 through 27. To estimate amount of busing before and after plan implementation, divide the number being bused by race by the total school enrollment for that race. For example, if the white student population is 10,000 and 3,000 were bused before the plan, mark a "3" for white on question 25. If 4,000 whites were bused following desegregation, a "4" would be marked for question 26. To estimate the increase in busing for question 27, a percentage increase would be calculated. In this example, the increase in whites being bused of 1,000 would be divided by the initial number being bused, 3,000, to yield a figure of 33.3%. Thus a "3" would be marked for question 27.

If the before and after busing figures are expressed only as percentages, the increase in busing would be calculated as follows: subtract the initial year's figure from themore recent figure, then divide the difference by the initial year percentage. For example, if 40 percent of the students were bused before the plan was implemented and 55 percent afterward, the calculation is as follows:

$$\begin{array}{r} 55 \\ \underline{-40} \\ 15 \end{array}$$

15 ÷ 40 = .375 or 37.5% increase

Question 27 would then be marked as a "4"

EXHIBIT C

CASE SURVEY INSTRUMENT:
GUIDANCE FOR Q. 70 ON VIOLENCE

0	2	4	6	8	10
None	localized low intensity short duration	localized medium intensity short duration	localized high intensity short duration	localized high intensity long duration	widespread high intensity long duration
		OR	OR	OR	
		localized low intensity long duration	widespread medium intensity short duration	widespread medium intensity long duration	
		OR	OR	OR	
		widespread low intensity short duration	widespread low intensity long duration	widespread high intensity short duration	

Level of Intensity

low--vandalism, rock throwing, fighting

medium--above plus some arson and interference with police, fire, school officials

high--above plus moderate to extensive arson, sniping, killing

Step 2. A random sample of 10 case surveys[4] was drawn from the pool of 52 cases. The sample was stratified in two ways--by analyst-reader and by the time period when the checklist was completed (early, middle, or late stage of coding process).

Step 3. A tally sheet was created to facilitate the calculation of percentage agreement scores by question and across all items.

Table 1 summarizes the results of this exercise and compares the percentage agreement scores with interanalyst agreement scores reported in two recent studies employing the case survey method.

As Table 1 reveals, of the total number of questions possible to answer, coders marked a "sure" level-of-confidence for 83 percent of the answers and "not sure" for 17 percent of the responses. Interanalyst agreement on "sure" questions was 85 percent and 75 percent for "not sure" questions. These figures compare quite favorably to interanalyst reliability figures reported by Yin, Heald and Vogel (1977) in their study of state and local technological innovation (77.1% and 59.8%) and by Yin and Yates (1975) in their study of urban service decentralization (82.4% and 60.2%).

The level of interanalyst agreement across the 10 cases by question as well as additional information concerning intercoder reliability is found in Appendix C.

Dependent and Independent Variables

Previous studies utilizing the case survey approach have used the method as a means of collecting both outcome (dependent) and explanatory (independent) variables. For example, in their study of state and local

TABLE 1

SUMMARY OF INTERANALYST AGREEMENT AND COMPARISON OF RESULTS WITH TWO MAJOR STUDIES USING CASE SURVEY APPROACH

	Percentage of Responses			Percentage of Agreement		
Level of Confidence[a]	School Deseg.	State & Local Innov.[b]	Urban Service Decent.[c]	School Deseg.	State & Local Innov.[b]	Urban Service Decent.[c]
Sure	83.1	74.4	NR	85.2	77.1	82.4
Not Sure	16.9	25.6	NR	75.0	59.8	60.2

[a] "Sure" includes those responses for which both coders were sure; "not sure" includes those responses for which one or both coders were not sure; does not include responses for which either coder considered the question "impossible to answer."

[b] Yin, Heald, and Vogel (1977: 26).

[c] Yin and Yates (1975: 38).

technological innovation, Yin, et al. (1977) used the case survey instrument to collect data on the propensity of state and local governments to adopt technological innovations as well as to collect various "device, background, and implementation" variables that were found to be significant correlates of successful innovative efforts.

In the present study, the case survey instrument was used primarily to collect desegregation background information (e.g., date of major desegregation effort, court involvement, etc.) and desegregation process variables (e.g., citizen participation, school board support, etc.). The two dependent variables analyzed in the study, desegregation success and white enrollment changes as well as other school district characteristics (e.g., percent minority, school enrollment) were derived from the Office of Civil Rights school file and were supplied to us in machine-readable form by Professor Franklin Wilson of the University of Wisconsin (Madison).

Table 2 presents the principal variables employed in subsequent analyses. The table also provides the source from which each variable was taken. Before proceeding to a discussion of the statistical methods that were employed to assess the relationships among the variables presented in Table 2, a few comments about the two dependent variables used in the study are in order.

To measure desegregation success, a widely used segregation index, generally referred to as the "index of dissimilarity" (DI), is employed (see Farley and Taeuber, 1974; Giles, 1974, 1975; Farley, 1975, 1976a, 1976b; Giles and Walker, 1975; Rodgers and Bullock, 1976a, 1976b; Morgan

TABLE 2

PRINCIPAL VARIABLES EMPLOYED IN STUDY AND DATA SOURCE

Variables	Data Source
Dependent	
Desegregation change (1968-76)	OCR school district file (from Franklin Wilson)
White school enrollment change (1968-76)	OCR school district file (from Franklin Wilson)
Independent	
External Influences	
Region (0/1)[a]	*County-City Databook*, 1977
Coercion (0-7)[b]	Case survey--questions 10, 16, 17, 62
Suburban escape[c]	U.S. Bureau of the Census, 1972 (Table 19)
Avg. pre-implementation white enrollment declines[d]	OCR school district file (from Franklin Wilson)
School District Characteristics	
Type of school district (0/1)[e]	Case survey--question 50
Minority students (%)	OCR school district file (from Franklin Wilson)
Size of district (total student enrollment)[f]	OCR school district file (from Franklin Wilson)
Desegregation Process Variables	
Superintendent and school board support (0-4)[g]	Case survey--questions 56, 65
Citizen participation (factor score)[h]	Case survey--questions 57, 59, 60
Elite support (factor score)[h]	Case survey--questions 51, 66
Desegregation resistance (factor score)[h]	Case survey--questions 68, 70, 71
Hiring of new school superintendent (0/1)[i]	*Patterson's American Education*, Vols. 54-72
School board insulation (0-3)[j]	Mail survey of 52 school districts
Desegregation Techniques[k]	
Open enrollment	Case survey--questions 18, 38
Construction of new schools	Case survey--questions 19, 39
Pairing/clustering	Case survey--questions 20, 40
Magnet schools	Case survey--questions 21, 41
Rezoning	Case survey--questions 23, 43

TABLE 2 CONTINUED

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[a] 0-Nonsouth; 1 = South. South includes the District of Columbia, the 11 states of the Confederacy, and six border states (Delaware, Kentucky, Maryland, Missouri, Oklahoma, and West Virginia that had laws requiring separate school systems at the time of the 1954 Brown decision.

[b] A seven-point index that sums: (1) source of desegregation impetus, 0 = local, 1 = HEW, 2 = court order; (2) court order plan parameters, 0 = none, 1 = recommendations, 2 = specified plan; (3) court specify racial balance, 0 = none, 1 = recommended minimum and maximum racial balance, 2 = ordered minimum and maximum racial balance; (4) court mandated special master, 0 = no, 1 = yes.

[c] Indicator of availability of alternative schools in the metropolitan area. Operationalized by dividing total school enrollment in the suburban ring of the SMSA by total district enrollment for the central city. The higher the ratio the greater the availability of other schools in the area.

[d] Used in the white flight analysis as a control measure to represent trends in pre-implementation white enrollment change. Calculated by summing pre-implementation percentage white enrollment changes and dividing by appropriate number of time points.

[e] 0 = noncountywide, 1 = countywide.

[f] Year before major desegregation effort.

[g] School board support, 0 = opposed, 1 = neutral, 2 = favor; superintendent support, 0 = opposed, 1 = neutral, 2 = favor.

[h] These three variables represent dimensions of community and local elite involvement in and support of local desegregation efforts. The original eight variables from the case survey instrument were factor analyzed using the common factor model. Based on Kaiser's criterion (eigenvalue $\geq$ 1.0), three factors emerged: Factor 1 was labeled citizen participation; Factor 2, elite support; and Factor 3, desegregation resistance. In total, 73.5 percent of the common variance was captured by the three dimensions.

[i] A district received a score of 1 if a new superintendent was hired the year before or year of the district's major desegregation effort.

[j] A three-point index measuring the degree to which local school boards are more insulated from outside influences: size of school board $> 7 = 0$; $\leq 7 = 1$; term of office $< 2, 3 = 0$; $\geq 4 = 1$; number of meetings per month $> 2 = 0, 1 = 1$. Thus, the smaller the size of the school board, the longer the term of office, and the fewer the number of meetings per month, the more insulated the school board (see Morgan and Fitzgerald, 1980).

[k] The case survey instrument also allowed the analyst-reader to record educational parks as a desegregation strategy. However, this method was not used as a primary technique by any of the 52 districts.

and Fitzgerald, 1980). This index was created originally by Taeuber and Taeuber (1965) to measure residential segregation in American cities. The index represents the amount by which each school in a district departs from the precise racial composition of the entire district. In other words, the index value indicates the percentage of the total minority and white students that would have to change schools in order to achieve racial balance.[6]

While at least 13 indices of segregation are in general use (see Taeuber and Wilson, 1979b) and controversy surrounds which index most accurately measures (de)segregation (see Cortese, et al., 1976; Fitzgerald and Lyons (1978), the index of dissimilarity, according to Taeuber and Wilson, 1979a: 6), "provides the most useful operationalization of relevant features of the concept 'segregation' for the purposes of policy analysis." The index has important policy implications in three respects. First, the index is easily interpreted. The index scores range from 0 (indicating complete desegregation) to 100 (indicating complete segregation). Any value between these two end-points of the scale represents the number of minority or white students who would have to change schools in order for every school to reflect district racial composition. For example, if district A has a dissimilarity index score of 50.0, then either 50 percent of the minority students or 50 percent of the white students, or some combination of both (e.g., 30% minority and 20% white) would be required to change schools in order to obtain total desegregation (DI score of zero).

Second, the index facilitates the analysis of temporal changes in the status of local desegregation efforts. For instance, if in 1969 district B had an index score of 80.0 and after an extensive desegregation effort in 1970 the score remained 80.0, then one could safely assume that the district's efforts were not very successful.

Finally, and closely related, the index can be employed by the courts or HEW officials to measure the extent to which local districts are in compliance with mandates to end dual school systems.

With respect to changes in white school enrollment, while a modest amount of controversy surrounds how to explain it (see Section 4), little disagreement exists about how to measure it. In general, changes in white school enrollment are operationalized by a percentage change from time X to time Y divided by the antecedent year (time X).

In sum, the two dependent variables are change measures. Desegregation success is operationalized as the absolute change in the index of dissimilarity from the year prior to desegregation implementation (T-1) to implementation year (T). White enrollment change is calculated as white school enrollment implementation year (T) minus white school enrollment the year prior to implementation (T-1) divided by the white school enrollment the year prior to desegregation (T-1). The year prior to and year of major desegregation effort by grade level for each of the 52 districts can be found in Appendix D.

Certain characteristics of the 52 districts should be provided here. The majority of the districts are southern (31), although a sizable number are located outside the South (21). South is defined here as those 11 states of the Confederacy and six border states (see Table 2, note a). Partly because the bulk of the cases are from southern states, quite a few districts are countywide (20). The majority of the districts (32), of course, do not encompass the entire county. As mentioned above the minimum enrollment for the entire school system was set at 20,000 students. At the year of desegregation the average (mean) size of the 52 districts was 72,510 (median = 54,974). The range was from 12,492 to 244,016 (the actual size variable for four districts fell below 20,000 where the enrollment data were used for one level only). The minimum proportion minority was set at 10 percent for at least one year of the study. The average (mean) figure was 33.4 percent (median = 27.9%). The actual range was from 5.5 to 77.4 percent, with minority data for a few districts falling below the minimum for part of the period under study.

Methods

To assess the effects of the four types of independent variables--external influences, school district characteristics, desegregation process influences, and desegregation strategies--on the two desegregation outcome variables--desegregation success and changes in white school enrollment--a series of bivariate and multivariate statistical analyses are performed. Sections two through four of this report summarize the results of these analyses.

Section two presents a preliminary analysis of the relationship between desegregation strategies employed across the 52 school districts and desegregation success. Since local school officials may opt to use one type of desegregation strategy to desegregate elementary schools and another type to end racial isolation in secondary schools, the analysis of desegregation strategies and desegregation success is performed by school level. Mean analysis serves as the primary statistical procedure for estimating effects. In section three an attempt is made to place school desegregation in a multivariate context. That is, using multiple regression, the independent effects of the four classes of predictor variables on desegregation success are determined. Finally, employing primarily the same statistical methods and explanatory variables, section four presents the results of the analysis of white enrollment change.

NOTES

1. Many of these contacts yielded information that was used to check the accuracy of information presented in certain case studies, or to answer specific questions where case studies did not report information (e.g., busing information).
2. Thirty-six other documented desegregation efforts were found in the literature search. Unfortunately, however, for 25 of the 36 cases the district's desegregation efforts occurred either before 1968 or after 1976. In four cases the school district's percent minority did not reach the 10 percent criterion or the percent minority was too high. Finally, the desegregation efforts as reported in seven cases were deemed insufficient in depth as well as breadth for inclusion in the study.
3. Two of the practice cases were among those that were unusable because they did not meet either the size or date criteria (Wilmington, Delaware and Stamford, Connecticut). The third trial case was Tulsa, Oklahoma, for which the mutually agreed upon final instrument was used as one of the 52 total cases.
4. The ten cases were: Newport News, VA; Clark County, NV; Boston, MA; Colorado Springs, CO; Wichita, KS; Dade County, FL; Richmond, CA; Houston, TX; Mobile, AL; Minneapolis, MN.
5. The effects of several other variables (e.g., residential segregation, busing increases) on the dependent variables were also assessed. Where appropriate, the relationship of these variables with desegregation outcomes are reported.

6. The formula for calculating the index of desegregation is:

$$D = \sum_{i=1}^{K} \frac{T_i(P_i-P)}{2\ TP\ (1-p)}$$

where: P_i = proportion of students in a school who are minority group members;

P = proportion of the minority population of the total school district population;

K = total number of schools in district;

T_i = total population of the ith school; and

T = total population of the school district.

A value of 100 (complete segregation) is observed when the differences between (P_i) and (P) are at their maximum. Conversely, a value of 0 (complete desegregation) is obtained when (P_i) equals (P) for all i's (see Taeuber and Wilson, 1979a: 6).

As a note of caution, the DI values are not statistically meaningful if: (1) a school district contains only one school; and/or (2) a district contains very few members of a given ethnic category. In order to guard against statistical artifacts Taeuber and Wilson suggest that when working with districts with populations of 5,000 or greater, a record should be deleted if the minority population is less than 3 percent or greater than 97 percent (Taeuber and Wilson, notes section of codebook for School District Universe Data File).

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II. A PRELIMINARY ASSESSMENT OF DESEGREGATION TECHNIQUES

This section offers a summary of current knowledge about the effectiveness of various desegregation strategies in reducing racial isolation and white student outmigration. The summary is organized around two topics. Since Brown II (1955) placed ultimate responsibility with federal courts for insuring the dismantling of dual school systems in America, desegregation techniques as viewed by the courts will be discussed first. Second, previous studies attempting to assess the effectiveness of desegregation strategies will be reviewed. Finally, a bivariate analysis is performed comparing various techniques with desegregation success and change in white enrollment.

Desegregation Techniques: A View From the Courts

While local school officials are primarily responsible for the formulation and implementation of desegregation plans, they must make decisions within the context of federal court rulings. Vergon (1981: 5-6) suggests that the courts may invoke five general standards in reviewing the adequacy of local plans:

> . . . the obligations of school officials is to bring about 'the maximum amount of actual desegregation in light of the practicalities of the local situation' . . . (Green v. Kent County, 391 U.S. 430, 1968; Swann v. Charlotte-Mecklenburg Board of Education, 402 U.S. 1, 1971).
>
> [t]he primary criterion for assessing the legal adequacy of a plan . . . is its effectiveness in eliminating one-race or racially identifiable schools (Green).
>
> [w]hile prohibited from requiring school districts to achieve a precise racial mix or balance . . . courts are authorized to use racial ratios as a starting point in formulating or evaluating the effectiveness and legal adequacy of proposed plans (Swann; Columbus Board of Education v. Penick, 443 U.S. 449, 1979).

> . . . where racially identifiable buildings persist, school districts are generally required to utilize, and courts to order the utilization of, the most effective desegregation technique reasonably available (Green; Davis v. Board of School Commissioners of Mobile, 402 U.S. 33, 1971).

> . . . although the inter-district or metropolitan plan may be practically effective in reducing the racial segregation of pupils it may be legally unavailable unless certain conditions are present and can be adequately demonstrated.

Vergon (1981) is quick to note, however, that a host of other district-specific influences help guide federal court decisions, such as practical considerations (e.g., logistics of desegregation), education factors (e.g., curriculum capacity), and equitable principles (e.g., disproportionate racial burden). In short, in deciding upon a desegregation strategy school district officials, desegregation planners, as well as the courts must attempt to strike a delicate balance between local values, mores, and environmental conditions and the national policy mandate to end dual school systems. Thus, while school policy makers must follow the law, they are not required to operate within a strategic straight jacket. In fact, the various strategies that may be employed to reduce racial isolation is surprisingly large--everything from open enrollment to redrawing attendance zones to magnet schools. The remainder of this section discusses these various desegregation techniques and their effectiveness.

Types of Desegregation Strategies and Effectiveness

After local officals voluntarily decide or are forced to desegregate, a desegregation plan must be developed and implemented. Willie (1978: 58-59) lists the basic components of a "good" school desegregation plan in the following terms:

> . . . (a) there is a systemwide approach; (b) the school and not the student is the basic educational unit; (c) such units or

> schools that complement each other may be grouped into common attendance zones, districts, or regions for more effective and efficient operation and administration; (d) a uniform grade structure facilitates interchange between and easy access to all units or schools within the system; (e) opportunities are provided to pursue specialized interests as well as common concerns; (f) the existence of a monitoring structure insures good-faith implementation of the systemwide plan; (g) faculty is diversified.

Perhaps a more pragmatic definition of a good desegregation plan is offered by Fifth Circuit Judge John Minor Wisdom. He comments: "The only school desegregation plan that meets constitutional standards is one that works" (*United States* v. *Jefferson County Board of Education*, 372 F. 2d, 845). Regardless of how it is defined "once armed with criteria for assignment and with a knowledge of the alternative strategies that can be employed, the desegregation planner is an artist, not a technician or a scientist" (Crain and Hawley, 1981: 10). He or she must pick and choose among a plethora of available desegregation strategies and attempt to find one or a combination of techniques that will work under local conditions.

Desegregation Techniques. A number of desegregation techniques appear to be available to desegregation planners, although close examination suggests that many are variations on a few basic strategies. Kirby, et al. (1973: 39) list 27 different desegregation actions taken by a large group of northern communities. They divide these into three groups: (1) *symbolic-procedural* (e.g., appoint a committee to study the problem), (2) *voluntary participation* (e.g., initiate compensatory education, hire more black teachers), and (3) *forced participation* (e.g., redraw boundaries, close schools, busing). Most of the literature identifies a much smaller group of techniques, which would come under the Kirby, et al. heading of forced participation.

For example, Hughes, Gordon, and Hillman (1980: Chap. 5) enumerate six commonly used techniques for pupil assignment: rezoning, contiguous pairing, noncontiguous pairing, clustering, single-grade centers, and islands, listed in order of "ease and economy of implementation" (p. 54). Foster (1973) discusses five basic means: redrawing zone lines, pairing and grouping, modified feeder patterns, skip zoning, and site selection and construction policies, along with several so-called "optional methods" (including open enrollment and magnet schools). In their research on California school desegregation, Wegner and Mercer (1975) construct a "desegregation action index" from six techniques: relocation, new construction, boundary changes, open enrollment, mandatory busing, and pairing.

Finally, after reviewing the various commonly employed desegregation strategies, Vergon (1981) identifies two generic types of strategies: voluntary (e.g., open enrollment, magnet-only, free transfers) and mandatory (e.g., rezoning, pairing, clustering).[1] Based on these two generic types of strategies, the effectiveness of different desegregation strategies in reducing racial isolation is now addressed.

Desegregation Strategies and Effectiveness. Voluntary desegregation strategies such as open enrollment and free transfers represent the customary initial approach to a school desegregation order. In general, these strategies have not proven effective in reducing racial isolation. In fact, in 1968 (Green v. Kent County, 391 U.S. 430, 441, 1968), the Supreme Court held that: "If there are reasonably available other ways . . . promising speedier and more effective conversion to a unitary, nonracial school system, 'freedom of choice' must be held unacceptable."

In response, many communities tried a novel voluntary desegregation strategy--magnet schools. Most of what is known about magnet schools, with the exception of Rossell's (1979) comparative study, is based on the experience of a particular school district with the technique. The case literature and court rulings suggest that magnets, especially as the sole desegregation action, do not produce much change. For example, in Buffalo, New York, the magnet feature of the plan was found not to be particularly effective in attracting whites to formerly minority schools (Vergon, 1981: 11). Similarly, in Boston the court rules that reliance on a magnet school approach "would be to place the realization of the rights of Boston's black students in a vessel that would begin its voyage rudderless against the world" (401 F. Supp. 228). Finally, Rossell (1979: 316) suggests that magnet plans "may have unintended negative impacts which can subvert the goals of desegregation."

In contrast to voluntary desegregation techniques, "the effectiveness of mandatory plans utilizing geographic reassignment techniques is suggested by the number and proportion of approved plans which incorporate this approach to a significant extent" (Vergon, 1981: 15). Under mandatory desegregation strategies, school officials and not students or parents decide which schools a student will attend.

Mandatory student reassignment techniques include:

(1) Construction of new schools--new schools built usually in minority, mixed, or "neutral" neighborhoods.

(2) Pairing or clustering--the realignment of the grade structures for two or more schools in an attendance area where all students must attend both schools for certain years. An example of pairing would be two elementary schools paired--one containing grades 1 through 3, the other grades 4 through 6.

(3) Rezoning or school closing--the redrawing of attendance area boundaries so that the newly constituted areas more closely reflect the racial composition of the entire school community.

(4) Magnet-mandatory schools--student has the choice of attending a desegregated neighborhood school or a desegregated magnet school.

To date, only a limited number of studies have attempted to assess the impact of desegregation techniques on desegregation success using a systematic, comparative research design. Most analyses of effects rely on singular case studies which restrict the generalizability of findings across cases. The Wegner and Mercer (1975) study of 49 California unified school districts is a notable exception.[3]

As mentioned above, these authors combined six techniques into a so-called "desegregation action index."[4] To assess the impact of these desegregation techniques on their dependent variable (change in racial balance 1966-1971), three analyses were performed. First, using a dichotomous variable (0/1), the researchers compared mean changes in racial balance for those districts that used a technique with those that did not. Second, a multiple correlation coefficient was calculated between desegregation actions and change. Finally, the desegregation action index was correlated with the dependent variable. In each analysis, the results were not statistically significant. Thus, Wegner and Mercer (1975: 134) conclude, "the number and kind of Desegregation Actions taken by a district does not [emphasis added] significantly influence the extent to which that district will experience a change in the percent of minority children attending racially balanced schools."

Wegner and Mercer's study is limited to California districts, and the only other comparative analysis of the effects of techniques on desegregation success (Kirby, et al., 1973) is based on data from the 1960s for northern districts only. There would seem to be ample justification for further analysis of this potential relationship between strategies and success using a more representative sample of districts and a more commonly used measure of desegregation.

What about white flight? Do any desegregation techniques or features of the plan seem to affect white enrollment? Most of the systematic research on white flight does not take account of any features of the desegregation plan itself (see the next section of this report). Any effect of desegregation is determined altogether by using some measure of the change in racial balance occurring as a result of plan implementation. Yet Rossell (1981: 46-48) does point out that certain characteristics of the desegregation effort may affect white enrollment. They include the following:

- o White reassignments to formerly black schools result in considerably more white enrollment loss than black reassignments to white schools.
- o The greater the busing distance, the greater the white flight, but only in the implementation years.
- o White flight is greater from elementary school desegregation than from secondary school desegregation.
- o Phased-in plans may result in greater white flight than plans implemented in one year because of the advance notice parents receive.

- o Magnet-mandatory desegregation plans produce more interracial contact, despite greater white flight, than magnet-only plans, at least over the short run.

The data gathered for this project do not permit a test of all of these propositions. But, at least in a bivariate relationship, the effects of certain desegregation strategies on white enrollment can be ascertained.

Perhaps it should be mentioned again that desegregation success is operationalized as the absolute change in the index of dissimilarity from the year prior to desegregation implmentation (T-1) to implementation year (T). White enrollment change is a percentage figure based on the amount of change from the year desegregation was begun (T-1) to the year of implementation (T). In the analyses to follow, a difference in means test is used as the primary statistical technique to estimate the effects of each technique.

Strategies, Desegregation Success, and White Flight: A Bivariate Analysis

For purposes of this research only five basic desegregation strategies were coded--voluntary student assignment (including voluntary open enrollment and majority to minority transfer), construction of new schools, pairing and clustering, magnet schools,[5] and rezoning. This decision was based on two considerations. First, previous research suggests that only a limited number of principal techniques are actually used. Second, the use of a larger number increases the likelihood that only a few districts will have used certain techniques. It would then be more difficult to separate out the effects of techniques from other characteristics of the district or the desegregation process. In other words, a proliferation of techniques makes it more difficult to generalize regarding the possible effectiveness of each one.

As mentioned previously different desegregation actions are often pursued at different grade levels. What is appropriate or potentially effective at the secondary level may not be so at the elementary level, and vice versa. So the bivariate analysis of techniques will divide the 52 districts into elementary and secondary schools.[6] As discussed above, in a few instances desegregation was undertaken by only one level. For example, elementary school desegregation actions numbered 46, while 47 occurred at the secondary level. (Those districts implementing plans at only one level are shown as part of Appendix D.) In any event, an analysis of desegregation strategies should provide information by level as well as for the entire school system.

Initially, Table 3 offers a comparison that includes desegregation and white enrollment change by number of strategies used--two or less or three or more. As the data reveal, quite a few districts relied on only a small number of techniques, and perhaps surprisingly, such efforts produced better results than those instances where three or more were used. For the entire system, those using two or less had a mean change in desegregation level between T and T-1 of -34.0 (larger scores equal more change). This compares with a figure of -23.5 for districts using a greater number of techniques. The same thing holds for each separate level, but especially for secondary schools. At this point one would not want to make too much of this preliminary finding, but at the least, it suggests that the use of a number of specific approaches

TABLE 3

DESEGREGATION SUCCESS AND WHITE ENROLLMENT CHANGE ACCORDING TO TOTAL STRATEGIES USED FOR DISTRICTS AND BY SCHOOL LEVEL

	School Level								
	Systemwide			Elementary			Secondary		
Strategies	N	$\bar{X}$ Deseg. Chg.[a]	$\bar{X}$ White Enroll. Chg.[b]	N	$\bar{X}$ Deseg. Chg.[a]	$\bar{X}$ White Enroll. Chg.[b]	N	$\bar{X}$ Deseg. Chg.[a]	$\bar{X}$ White Enroll. Chg.[b]
≤ 2	23	-34.0	-7.9	32	-27.3	-2.6	29	-36.4	-11.8
≥ 3	27	-23.5*	-11.5	14	-17.5*	-9.3*	18	-18.0**	-12.6
TOTAL	50	-28.3	-9.8	46	-24.3	-4.7	47	-29.4	-12.1

*p < .05.

**p < .01.

[a] Measured as the absolute change obtained by subtracting the desegregation score at T from T-1.

[b] Percentage change from T-1 to T.

does not help, that in fact concentration on a few more potentially effective techniques is the better course of action.

Table 3 also shows that the fewer strategies employed, the lower the rate of white student loss (percentage change between T-1 to T), although the relationship is not statistically significant. By school level, however, important differences appear for elementary grades, where the difference in loss between fewer and greater number of techniques is 6.7 percent (-9.3% compared to -2.6%). No such differences appear for secondary schools.

Before assessing the effectiveness of various strategies it might be instructive to examine just which ones were most widely used, again by school level.[7] Table 4 provides this comparison. Although a variety of combinations appear, only a limited number are extensively employed. At the elementary level, three techniques separately or in combination clearly predominate--rezoning (with 27% using that technique alone), pairing and clustering (25%), and pairing and clustering in combination with rezoning (20%). For secondary schools, only one strategy was heavily used--rezoning (61%). Thus attention should be focused on those actions most frequently used to avoid any tendency to generalize about the success or lack thereof when a technique or combination was used by only a few places. Otherwise we might be tempted to attribute more to a technique than we should without taking into account the other special characteristics of the district and community. For example, at the elementary level only one district used the combination of magnet schools and rezoning. This plan produced a drop in segregation level of only 1.6 points. Yet a quick glance through Table 4 shows that rezoning itself or in combination is often an effective desegregation tool. One might conlcude therefore that this one (elementary) district was deviant. So, further discussion will be confined to the more widely used strategies.

When desegregation success at the elementary level is examined in Table 4, pairing and clustering with rezoning produces the most change--a 40.5 absolute drop in the level of segregation. This is closely followed by the 35.9 point change reflected for pairing and clustering alone. Rezoning as a primary technique also does well, with an absolute decline in racial isolation of 31.6 points. Tentatively then these three strategies alone or in combination seem to work well. The most improvement in racial balance for elementary schools, of course, is associated with pairing and clustering with rezoning.

Table 4 also shows white enrollment change by strategy for the two levels. First, for elementary schools the average decline in white enrollment during the desegregation year was 12.1 percent. This compares with the average loss for the year preceding desegregation of 4.9 percent (not shown in the table; N=43). Also, for the year following plan implementation the average decline among elementary grades is 5.1 percent (also not shown; N=39). The range of enrollment change among the districts at implementation year is considerable--from one school system with no decline to one with a 37.5 percent drop. But if we concentrate on the three most frequently used techniques, the range is much narrower. Somewhat surprisingly, pairing and clustering with rezoning, the most effective desegregation strategy, also reflects the lowest level of white flight of the three, 5.4 percent. Pairing and

TABLE 4

THE EFFECT OF DESEGREGATION STRATEGIES ON DESEGREGATION SUCCESS AND WHITE ENROLLMENT CHANGE BY 52 SCHOOL DISTRICTS AND BY SCHOOL LEVEL

	School Level							
	Elementary				Secondary			
Strategies	N[a]	%	$\bar{X}$ Deseg. Chg.[b]	$\bar{X}$ White Enroll. Chg.[b]	N[c]	%	$\bar{X}$ Deseg. Chg.[d]	$\bar{X}$ White Enroll. Chg.[d]
Vol. assign.	1	2	-	-	1	2	-31.1	-9.6
Const. new school	-	-	-	-	1	2	-24.3	-8.9
Pair./Clust. (P/C)	12	25	-35.9	-13.0	1	2	-18.5	-11.0
Magnet	2	4	-9.3	-23.6	1	2	-4.0	-0.7
Rezoning	14	27	-31.6	-15.4	29	61	-27.8	-2.2
P/C-Rez.	10	20	-40.5	-5.8	2	4	-44.2	0.0
Vol.-P/C-Rez.	2	4	-3.8	-7.6	1	2	-0.1	-4.5
Vol.-P/C-Mag.-Rez.	-	-	-	-	1	2	-22.8	-6.9
Vol.-Rez.	2	4	-33.4	-5.4	1	2	-22.1	0.0
Vol.-Const.-P/C-Rez.	1	2	-2.8	-37.5	1	2	-6.6	-10.8
Const.-Rez.	2	4	-11.7	4.6	2	4	-9.4	6.7
Mag.-Rez.	1	2	-1.6	-15.5	4	9	-13.9	-19.4
Vol.-Mag.-Rez.	-	-	-	-	1	2	-12.9	-13.3
Vol.-Const.	1	2	-.09	0.0	-	-	-	-
Const.-P/C-Rez.	1	2	-2.2	-11.7	-	-	-	-
Vol.-Mag.	1	2	-22.4	-21.1	2	4	-18.1	-13.4
TOTAL	50	100	-29.4	-12.1	48	100	-24.3	-4.7

[a] Two districts' desegregation efforts (Stockton and Colorado Springs) did not include elementary schools.

[b] (N=47). Five cases were not included in the analysis: Stockton and Colorado Springs (see note a); Peoria and Tacoma (no T-1 desegregation time point); Corpus Christi (missing data).

[c] Desegregation in four districts (San Francisco, Lansing, Pontiac, Clark County) did not include elementary schools.

[d] (N=46). Six cases were not included in the analysis: San Francisco, Lansing, Pontiac, Clark County (see note c); Peoria and Tacoma (no T-1 desegregation time point).

clustering is associated with a decline of 13.0 percent, while rezoning shows a 15.4 percent drop. This relatively low degree of white loss found with pairing and clustering with rezoning would certainly seem to enhance its position as the most desirable strategy for elementary schools.

Turning to desegregation success at the secondary level (in Table 4), as noted above, rezoning is the overwhelming choice (61%), and this technique brings an absolute reduction in segregation of 27.8 points. This is not the largest reduction for all techniques, which is 44.2 points for pairing and clustering with rezoning, but only two secondary schools use this combination approach. This small number, as mentioned above, makes it more difficult to generalize about the effectiveness of this particular combination.

What relationship exists between strategies and white enrollment change at the secondary level? As Table 4 shows, the overall white loss at this level, 4.7 percent, is considerably less than exists for elementary schools. One year predesegregation loss is .3 percent, while one year after implementation the loss continues at 2.1 percent (not shown in Table 4). The technique employed by most of the districts (rezoning) is associated with an even lower level of white decline, 2.2 percent. Certainly nothing here suggests that rezoning should be avoided because of any potential negative effect on white enrollment.

One further comparison of strategies might be useful. Table 5 contrasts the effects of each of the most used techniques (under base group) with all others that are used (comparison group), by school level. Consider desegregation change at the elementary level, for example.

TABLE 5

EFFECTS OF PRIMARY DESEGREGATION STRATEGIES COMPARED TO ALL OTHERS BY SCHOOL LEVEL

All			Base Group				Comparison Group			
N	$\bar{X}$ Deseg. Chg.	$\bar{X}$ White Enroll. Chg.	Strategies	N	$\bar{X}$ Deseg. Chg.	$\bar{X}$ White Enroll. Chg.	Strategies	N	$\bar{X}$ Deseg. Chg.	$\bar{X}$ White Enroll. Chg.
					Elementary Level					
47	-29.4	-12.1	P/C	12	-35.9	-13.0	All Others	35	-27.1	-12.0
47	-29.4	-12.1	Rezon.	13	-31.6	-15.4	All Others	34	-28.5	-10.8
47	-29.4	-12.1	P/C Rezon.	10	-40.5	-5.8	All Others	37	-26.4	-13.8
					Secondary Level					
46	-24.3	-4.7	Rezon.	29	-27.8	-2.2	All Others	17	-18.5	-8.8

The 12 districts using pairing and clustering reflect a 35.9 point decline in level of segregation. This contrasts with the 27.1 drop for the remaining 35 schools employing all other techniques. Actually, the information on the left-hand side of the table (for the base group) also appears in Table 4. But Table 4 offers no direct way of showing how each technique fares against all others combined. Table 5 offers this comparison. In brief, Table 5 confirms again for the elementary level that pairing and clustering combined with rezoning produces the most effective desegregation results. For secondary schools Table 5 also shows that the 29 districts using rezoning achieve more desegregation change (-27.8) than those using all other techniques (-18.5). These results also confirm the earlier findings regarding white flight. The most effective technique for elementary schools (pairing/clustering with rezoning) shows much less white enrollment loss (5.8%) than when all other techniques are used (13.8%). This particular comparison highlights even more how little white flight (2.2%) is associated with rezoning compared to all other techniques (8.8%).

Busing, Desegregation Success, and White Flight

Some might consider busing as a separate desegregation tool (see Wegner and Mercer, 1975). No doubt some efforts to achieve a unitary school system result in sizable increases in student transportation. Yet seldom do courts order busing per se; ordinarily more transportation must be provided by the district to implement the requirements of a specific plan. Nonetheless, one might assume that an increase in busing would be associated with greater desegregation success. In fact, Orfield (1978: 137) cites evidence to show that in many places with very little additional busing the amount of school desegregation could be greatly increased.

Information on busing was collected for the 52 districts in this study. In particular, an attempt was made to gauge the increase in student transportation resulting from desegregation. This turned out to be one of the most difficult data gathering tasks of the project. Many written reports do not provide before and after data on busing, and busing information by school level is virtually nonexistent. This void in the published literature required that a number of telephone calls be made to various districts. In some instances, school officials were being asked to provide busing information from 10 years ago. Fortunately some had such data and shared it with us. Others either did not have it or for whatever reason would not provide it. The result is that when the busing increase variable is included in the analysis, the N is reduced to 44. One further comment should be made regarding the busing measure. This was scored on a basis of 0 to 20, generally corresponding to a percentage increase. That is, a score of 10 would indicate a 100 percent jump in busing. The upper limit of 20 was established to handle one or two very large increases that otherwise might have to be treated as outliers and removed from the analysis.

Table 6 provides one way of assessing the effects of busing. The districts are divided at the median increase (4 or about 40 percent), and comparisons are made between one group above and one group below the median. The table shows the predesegregation DI score, the implementation year score, and two change measures. Those districts with more busing experience slightly greater reductions in racial isolation (an absolute

TABLE 6

BUSING INCREASE, DESEGREGATION CHANGE, AND WHITE ENROLLMENT CHANGE

Variable (+ Time Point)	Busing Increase[a]		
	All	Below Median[b]	Above Median[b]
Deseg. score year prior to implem. (T-1)	65.1(N=44)	66.5(n=25)	63.3(n=19)
Deseg. score implementation year (T)	36.8(N=46)	40.5(n=27)	31.6(n=19)
Deseg. score absolute change	-28.9(N=44)	-26.7(n=25)	-31.7(n=19)
Deseg. score percentage chg.	-44.7(n=44)	-40.9(n=25)	-50.0(n=19)
Percent white enrollment change (T-2 to T-1)	-1.7(N=37)	-3.1(n=19)	0.0(n=18)
Percent white enrollment change (T-1 to T)	-9.7(N=44)	-8.8(n=25)	-10.8(n=19)
Percent white enrollment change (T to T+1)	-2.9(N=37)	-2.2(n=22)	-3.8(n=15)

[a] Busing change was recorded on a scale of 1 to 20, with numerical values generally corresponding to percentage differences.

[b] Median=4.0.

change of -31.7 compared to -26.7), but it is not statistically significant. Since the busing increase score ranges from 0 to 20 a correlation coefficient has also been calculated--r = .14 (not significant). Thus, somewhat surprisingly increases in busing are only modestly associated with desegregation success.

White enrollment is also somewhat related to busing as shown in Table 6. Those districts with an above average increase in student transportation show no loss of white students prior to desegregation. At implementation those districts lose an average of 10.8 percent of white enrollment. This compares with an implementation year loss of the below average group of 8.8 percent. But this second group reflects a 3.3 percent loss for the preceding year. So the net loss is only 5.5 percent, considerably smaller than the loss figure for those with more busing. Also somewhat unexpectedly, the below median group has a post-implementation year loss of only 2.2 percent, actually lower than the figure of 3.1 percent for the year prior to desegregation. The above average group shows a 3.8 percent loss for the year after which, of course, compares with the 0 figure for the before desegregation year.

As suggested at the outset, some would not consider busing as a separate technique. Yet, some desegregation plans may require more increases in transportation than others. So information on the possible consequences of increased busing may be helpful. This preliminary analysis in which only two groups are compared should be considered as suggestive at best. With that caveat, the findings imply that mere increases in busing may not produce much desegregation change. Also, the results suggest that more busing might tend to accelerate white student outmigration. The effects of busing when other influences on desegregation are taken into account will be considered in the following two sections in which multivariate analyses are reported.

Summary

Too much should not be made of this bivariate analysis of segregation strategies, since it does take account of a variety of other influences that obviously can affect desegregation success. The multivariate analysis of desegregation change will incorporate a number of other explanatory measures as a way of putting strategies into the proper context. Yet this preliminary analysis does provide certain information that might be useful to both the desegregation planner as well as those who wish to understand the process better.

Even though the group of 52 districts differ in various ways, the use of a relatively small number of techniques alone or in combination suggests that we can place a measure of confidence in these preliminary results. Certainly previous research suggests that such factors as the size of district, percentage minority, and especially the degree of external pressure primarily determine the degree of desegregation success. But unlike others, this analysis suggests that specific techniques may also make at least a modest difference.

Those elementary schools using rezoning in combination with pairing and clustering not only achieved a greater reduction in racial isolation than those districts using other techniques, such schools also had less white enrollment loss. A comparable development appeared for secondary schools. Rezoning was the overwhelming choice of secondary schools, and compared to those using other strategies, districts using this approach reflected a greater degree of desegregation success. Additionally, white flight was lower for this technique in comparison with the others.

Busing was also considered as part of this bivariate analysis. When districts were divided at the median for a measure of busing increase, those above the average had somewhat greater desegregation success. Increases in busing also showed some modest relationship with white enrollment change: the more busing, the more white loss. As discussed above the available data for busing and the bivariate method of analysis necessitates that considerable caution be exercised in interpreting these findings.

Obviously, a school district or an educational consultant for the district or the court cannot arbitrarily impose a preconceived plan on a group of elementary schools. The particular needs and requirements of the district must be taken into account. Yet, this research suggests that where possible responsible officials might consider first the combination of rezoning with clustering and pairing of various elementary grades. At the secondary level, rezoning might be considered as the strategy of first resort.

For scholars of desegregation, the study emphasizes that different desegregation techniques are used across school levels with varying degrees of success. Thus, future assessments of the effectiveness of desegregation strategies in reducing racial isolation should incorporate appropriate designs to capture this variation.

NOTES

1. Vergon also lists interdistrict or metropolitan plans as a third general type of desegregation strategy.

2. Rossell's comparative analysis of the effects of magnet schools was based on a sample of 18 school districts, 10 of which employed magnet-mandatory plans and 8 which used magnet-only plans. Based on her data she concludes:

> Magnet-only plans are more efficient, in the short run, than magnet-mandatory plans. This is to say, in comparison with magnet-mandatory plans, they are able to obtain greater increase in interracial contact for a given reduction in racial balance. Nevertheless, in school districts over 30% minority, it appears magnet-only plans are not as effective as magnet-mandatory plans in increasing and obtaining a high level of interracial contact.

3. For two other studies that attempt to systematically assess the effect of desegregation strategies see Kirby, et al., 1973 and Rossell, 1979.

4. The desegregation action index did not take into account the degree to which each of the six techniques were used, only if they were used or not used.

5. The case survey instrument allowed the separate coding of magnet-only and magnet-mandatory plans. A preliminary analysis revealed, however, that (contrary to Rossell, 1979) there was almost no difference in the relationship of the two with desegregation success. Thus the two were combined into a single measure.

6. The OCR data being used in this analysis contain separate desegregation measures for two levels only. By interpretation it was also possible to determine the category to which junior or middle schools

had been assigned. For our 52 districts the junior or middle schools were assigned to the secondary level.

7. For both levels these techniques represent the primary but not exclusive ones used by particular districts. This was determined by the extensiveness of use as measured by the analyst-reader's interpretation of the case study.

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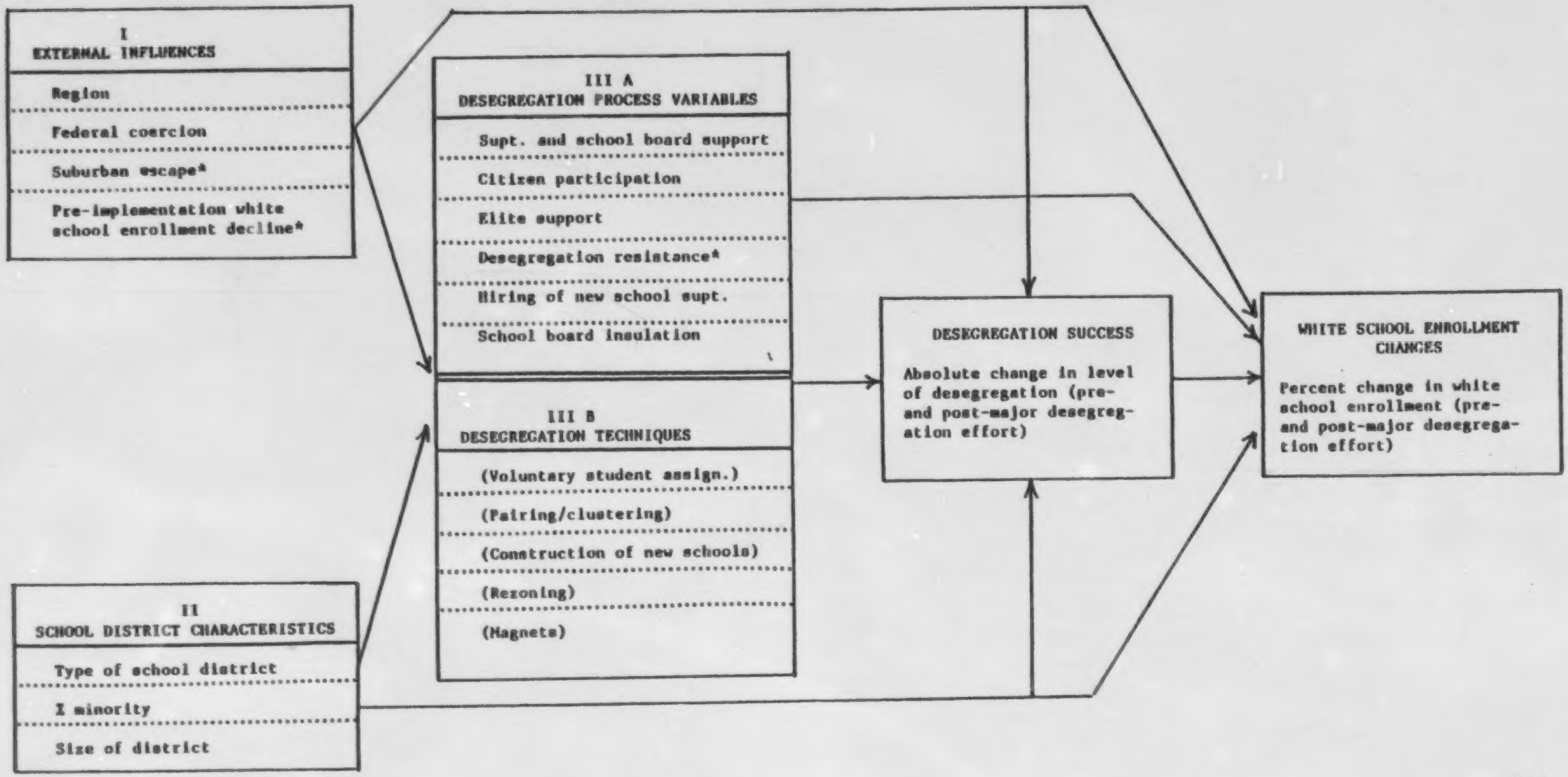
III. A MULTIVARIATE ANALYSIS OF DESEGREGATION SUCCESS

Success in achieving a racially balanced school system depends on considerably more than the desegregation techniques used. In fact, some aggregate comparative research accounts for considerable variation in levels of segregation without including any techniques in the analysis. Obviously a number of forces are crucial in affecting the outcome of the desegregation effort. Before proceeding to the multivariate analysis in this section, it should be helpful to examine the influences other research has identified as important in reducing racial isolation in the public schools.

These forces can be grouped into several basic categories--external influences, school district characteristics, and desegregation process effects (including desegregation strategies). In fact, the relationship among these fundamental factors seems to occur in sequential order, as shown in Figure 1. This diagram suggests that two principal exogenous influences provide the impetus for desegregation action: (1) a set of external pressures or conditions (e.g., federal coercion) and (2) the characteristics of the school district itself (e.g., percentage minority). These two basic elements directly affect the desegregation process (e.g., degree of support or resistance from various leadership and other community elements) and the specific techniques employed (e.g., pairing/clustering, rezoning). These three blocks of variables then are all presumed to help determine the

FIGURE 1. HEURISTIC MODEL OF FACTORS INFLUENCING SCHOOL DESEGREGATION SUCCESS AND WHITE SCHOOL ENROLLMENT CHANGE


I
EXTERNAL INFLUENCES
Region
Federal coercion
Suburban escape*
Pre-implementation white school enrollment decline*
II
SCHOOL DISTRICT CHARACTERISTICS
Type of school district
% minority
Size of district
III A
DESEGREGATION PROCESS VARIABLES
Supt. and school board support
Citizen participation
Elite support
Desegregation resistance*
Hiring of new school supt.
School board insulation
III B
DESEGREGATION TECHNIQUES
(Voluntary student assign.)
(Pairing/clustering)
(Construction of new schools)
(Rezoning)
(Magnets)
DESEGREGATION SUCCESS
Absolute change in level of desegregation (pre- and post-major desegregation effort)
WHITE SCHOOL ENROLLMENT CHANGES
Percent change in white school enrollment (pre- and post-major desegregation effort)

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*Only for white school enrollment changes.

degree of desegregation success. Likewise this same group of factors plus desegregation change should contribute directly and indirectly to the change in white enrollment. The discussion to follow will be oriented around this set of basic forces as depicted in Figure 1.

The external forces seem most basic of all. Because of obvious historic and legal reasons, region has been a major factor in school segregation from the beginning. Before the concerted action of the federal courts at the end of the 1960s, southern schools had made little headway with desegregation. Since that time, of course, the South has born the brunt of federal pressure, both through the actions of HEW and the Department of Justice operating through the courts. So these two major external conditions--region and federal pressure--have been prominently associated in the course of so much desegregation action over the past decade or so. Although which of the two sources of federal impetus is the most efficacious has been debated (see Bullock and Rodgers, 1976; Rossell, 1978: 156), no doubt federal pressure brings more desegregation (Farley, 1975a; Giles, 1975; Fitzgerald and Morgan, 1977).

Whether or not southern schools achieve greater racial balance upon desegregation than northern schools is not certain, however. Fitzgerald and Morgan's (1977: 448) comparison of the desegregation level for 1968 and 1972 among a large group of northern and southern cities shows that districts in the South made much greater changes over the four-year period. But that comparison can be misleading. The 1968 and 1972 segregation scores for their 114 northern cities changed hardly at all, indicating that few had actually desegregated. The South reflects large segregation score differences for 1968 and

1972 because so many southern districts had been forced to act during that period. When districts in both parts of the country desegregate, as in the case here, perhaps little difference in success will appear by region.

School district characteristics represent a second basic set of environmental forces affecting the effort to achieve racially balanced schools. Several district features would seem important, in particular the type of district (countywide or noncountywide), district size, and percentage minority.[1] Each of these will be considered briefly.

Many observers think an areawide approach to desegregation may be the only effective remedy for large urban areas (U.S. Commission on Civil Rights, 1977: 11-12). Without access to predominantly white suburbs, it may be virtually impossible to achieve real desegregation where central city minority enrollment is high. Nonetheless, since the 5-4 Milliken v. Bradley decision in 1972, the courts have been reluctant to compel metropolitanwide desegregation. Regardless of the court's position, something approximating areawide desegregation exists in some communities. In a number of southern states, especially, school districts are organized on a countywide basis. In effect, the absence of white suburban districts means that those who want to avoid desegregation must either choose a private school or perhaps leave the state. In particular, countywide districts are thought to be a useful deterrent to white student outmigration. Thus countywide districts may desegregate more successfully than noncountywide districts because they tend to have a higher proportion of whites initially and experience less white flight (Hawley, et al., 1981: 40). Thus the expectation here is that countywide districts will reflect more improvement in desegregation levels than noncountywide districts following the implementation of a desegregation effort.

Two other features of the school system may contribute significantly to desegregation success--the size of the district and the proportion minority. Almost every study agrees that the proportion minority substantially affects white public school enrollment. Evidence is strong that, at least prior to desegregation, the larger the proportion black the higher the level of school segregation (Dye, 1968; Farley, 1975a). It should be noted, however, that as federal intervention occurs, percentage minority pupils in a district becomes a considerably less important influence at least in southern school desegregation (Giles, 1975; Fitzgerald and Morgan, 1977). Since districts with high minority enrollment should evidence more segregation initially, they may show more change in levels of segregation after a plan has been implemented.

Size of district may affect the desegregation process primarily for physical and logistical reasons. Districts with large enrollments are likely to cover more territory and find it more troublesome to work out the complicated arrangements for transporting students. In fact, several studies (Giles, 1975; Farley, 1975a; Fitzgerald and Morgan, 1977) find the larger the district, the higher the initial level of segregation. Again, however, this relationship may be attenuated where desegregation occurs under federal coercion (see Morgan and Fitzgerald, 1980). Still, for purposes of this analysis, the expectation is that more desegregation success will be shown among smaller rather than larger districts.

Figure 1 also depicts an additional set of forces that should directly affect desegregation success. In fact, these influences might be divided into two groups--desegregation process variables and desegregation strategies. Since the preceding section dealt at some length with strategies, the discussion here will focus on just those variables associated with the desegregation process itself. In particular, attention will be devoted to the attitudes toward desegregation on the part of the school board and superintendent, citizen involvement in the process, and the views of other local elites (including the press). Two other measures associated with the board and superintendent will also be examined--whether or not a new superintendent was hired during the desegregation effort and the degree of political insulation of the local school board. Each of these will be discussed briefly in turn.

First, the school administration may play a key role in the desegregation process (see U.S. Commission on Civil Rights, 1976: 73-74). Even though most of the cases studied here involve mandatory efforts, the degree of cooperation, if not support, of the local school officials may considerably facilitate or impede the creation and implementation of an effective plan. In fact, among the 52 districts the desegregation effort was initiated voluntarily by the school board 15 percent of the time. Even where plan implementation is the only part played by the school administration, foot dragging and other recalcitrant actions by local officials are possible, all of which may adversely affect the ultimate outcome. In short, supportive school officials should be associated with higher levels of desegregation success.

What about the larger public, does it have much effect on school desegregation? This potential relationship will be tested in two ways. First, if the general white citizenry becomes interested in the process, it seems likely that this concern will be manifested by opposition and protest. Whether this resistance has any real effect is questionable. Intuitively one might assume that an aroused and irate citizenry might be able to at least slow down desegregation if not get certain objectionable features of the plan changed. Yet Rodgers and Bullock (1976: 43) report that organized white opposition had a negligible impact on desegregation. In effect, it came too late. As the authors put it, "The tardiness of organized opposition rendered it futile." They do acknowledge, however, that unorganized opposition may well have taken its toll at an earlier time by creating delays and perhaps contributing to the official reluctance to act until federal pressure became compelling. Kirby, et al. (1973: 125) observe that, among their group of 91 northern communities, white opposition was actually associated with greater desegregation success. Again, they agree that white resistance is ineffective since it comes after the fact. "By the time citizens have rallied to protest a decision, the die is cast." Still it would seem this relationship is worth testing for the 52 districts included in this study. An index of white resistance based on three questions was created through factor analyzing eight survey items pertaining to citizen and elite involvement (see Table 2, Section I). Resistance is not expected to have much effect on desegregation success.

Citizens may be involved in desegregation in another way--by serving in some official or semi-official advisory capacity to the local board or the court (a committee of 100, for example). Several questions were included in the survey instrument asking about the degree of officially sanctioned citizen participation in either plan formulation or plan implementation. Three questions relating to this form of involvement were grouped together by factor analysis to create an index of citizen participation. The expectation is that this form of citizen involvement should be positively related to desegregation progress among the various districts.

Several studies suggest that community elite support may facilitate the desegregation process (see Kirby, et al., 1973: Chap. 8; U.S. Commission on Civil Rights, 1976: 75; Hawley, et al., 1981: 66-67). The argument is as follows. Elite endorsement may minimize negative citizen reaction. Kirby, et al. (1973: 132) find that where elites favor desegregation, the masses follow. Undoubtedly, such commitment may also provide valuable help to local officials who might be less inclined to move boldly if they feared they might be isolated or even ostracized from important community leaders. The local media might also be considered as part of a community elite. In many ways it serves a similar purpose with regard to a local issue such as school desegregation by helping to shape public opinion and generate support or opposition to the plans of school officials. Again, an index of elite support (based on two questions) was generated through factor analysis. To the extent elites favored the desegregation effort, greater success should have been achieved.

Two other process measures are to be used. The first is the hiring of a new superintendent. Rodgers and Bullock (1976: 44) observe that changing a superintendent may expedite the demise of dual school systems in the South. Apparently bringing in new leadership can hasten the process of desegregation. The second variable is one labeled school board insulation. Certain governmental characteristics of the local school system make school board members less immediately accessible and less potentially responsive to citizen influence. For example, the fewer the meetings presumably the less opportunity the public has to confront board members over unpopular issues. The assumption is that school boards somewhat insulated from popular access are in a better position to act contrary to mass opinion. Several studies (Crain, et al., 1968; Kirby, et al., 1973) suggest that where sensitive or controversial issues are under consideration, action by local governments is easier where public participation is minimized. Thus it is expected that the greater the board insulation the higher the level of desegregation success.

The Multivariate Analysis

As was done for the preliminary assessment of strategies, the multivariate analysis of desegregation success will include the effects of various influences systemwide as well as by school level. Table 7 shows the systemwide analysis to include the simple correlation (r), the beta weight (standardized regression coefficient), the t scores (to determine the level of statistical significance), and the R^2 (total explained variance). After a brief consideration of the zero-order associations, the primary concentration will be on the beta. This

TABLE 7

EFFECTS OF VARIOUS INFLUENCES ON DESEGREGATION CHANGE AT SYSTEMWIDE LEVEL (N=50)

Blocks of Variables	r	Beta	t-score
External Influences			
Region[a] (0/1)	.23	.27	1.64
Federal coercion[b]	.37	.44	3.19**
School District Characteristics			
Type of district[c] (0/1)	.40	.27	1.46
Percent minority	-.26	-.01	.04
Size of district[d]	-.12	-.40	2.64**
Desegregation Process Variables[b]			
Supt. and school board support	.26	.29	2.18*
Citizen participation	-.03	.02	.14
Elite support	.02	.04	.28
Hiring new superintendent	.04	.21	1.63
School board insulation	.26	-.04	.32
		$R^2 = .46$	

* $p < .05$

** $p < .01$

[a] Non-South/South

[b] For operationalization see Table 2, pp. 22-23.

[c] Noncountywide/countywide

[d] Total school enrollment

statistic indicates how much change in level of segregation can be attributed to a one standardized unit of change in an independent variable, when all other variables are statistically held constant. In short, the beta indicates the relative importance of each variable within the equation.

First, the simple correlations at the systemwide level might be examined.[1] Several variables show fairly strong relationships with desegregation success. Type of district ($r=.40$) and federal coercion ($r=.37$) are the two strongest. Countywide districts reflect considerable achievement. Likewise, the more involved the federal government, the more desegregation change occurs. Several other correlations might be mentioned. Southern districts manifest more progress in creating unitary schools than did those in the non-South ($r=.23$). As expected, the greater the minority percentage, the less change took place ($r=-.26$). Only three desegregation process variables show enough simple association with desegregation success to warrant mention. Superintendent and board support is of some consequence; the more support, the more racially balanced the schools ($r=.26$). Likewise, the more the board was shielded from direct citizen pressure (board insulation), the higher the level of desegregation success ($r=.26$). Finally, one other correlation should be noted that is not shown in Table 7. Desegregation resistance covaries positively with desegregation change ($r=.27$). This suggests that, not only is opposition not effective, it probably arises in reaction to the desegregation effort. The more racial isolation is reduced, the greater the tendency of whites to protest, it would seem. This particular relationship is not included in the table for reasons discussed below.

None of the other simple relationships are especially noteworthy, except in some instances where they did not prove to be as closely associated with desegregation success as expected. In that regard, size of district, in particular, did not prove to be as conspicuous as had been expected ($r = -.12$). Previous research has found that elimination of dual school systems is especially difficult for those districts with large total enrollments. As will be shown below, however, district size does become quite potent in the multivariate analysis.

The results of the initial multiple regression analysis are also shown in Table 7. The equation for desegregation success at the systemwide level shows three statistically significant explanatory variables with a total explained variance (R^2) of 46 percent. Both measures in the external influence block are important. In fact, federal coercion (beta = .44) is the most powerful single effect in the equation. Region is also of some consequence with a standardized regression coefficient of .27 (not significant). Both are in the same direction as for the bivariate case indicating that, when other variables are taken into account, federal involvement produces more change and greater success occurs among southern than northern districts.

Two of the three school district characteristics are influential as well. In fact, size of district (beta = -.40) is the second most powerful effect of all under controlled conditions. The direction is as hypothesized: large districts have more trouble desegregating. Although not significant statistically, type of district is not inconsequential with a standardized slope (beta) of .27. Countywide districts still produce better results all other things considered.

Percent minority should be noted. With other measures held constant, the effect of this variable virtually disappears (beta = -.01). This confirms previous research indicating that when other forces enter in, the potential barrier of a large minority enrollment largely evaporates.

One of the five desegregation process measures reflects statistical significance. If desegregation resistance had been kept, it too would have been significant. Since the ordinary least squares regression techniques used here do not allow reciprocal causation, the resistance variable should not be used to predict desegregation success. As suggested above, this development comes after the fact. If this measure had been included, however, the R^2 for the equation would rise to .54. Superintendent and board support is of considerable import, and in the expected direction (beta = .29; statistically significant). Also, as others have shown, the hiring of a new school superintendent may also contribute to desegregation success (beta = .21). Otherwise, such things as citizen participation, elite support, and school board insulation do not make much difference when all factors are taken into account. Since the specific techniques are applied at each school level separately, they are not included as part of the systemwide analysis. The effects of strategies will be considered in the two tables to follow that examine the degree of desegregation success by level.

Table 8 provides the analysis for elementary schools only. It should be mentioned again that only a few of the 52 districts desegregated at just one level. This means that, with the exception of the desegregation technique variable, the values of the other predictor variables in this equation are virtually the same as for the systemwide

TABLE 8

EFFECTS OF VARIOUS INFLUENCES ON DESEGREGATION CHANGE AT ELEMENTARY SCHOOL LEVEL (N=47)

Blocks of Variables	r	Beta	t-score
External Influences			
Region[a]	.15	.13	.62
Federal coercion[b]	.29	.28	1.58
School District Characteristics			
Type of district[c]	.31	.30	1.41
Percent minority	-.24	.02	.10
Size of district[d]	-.17	-.25	1.30
Desegregation Process Variables[b]			
Supt. and school board support	.19	.23	1.47
Citizen participation	-.11	-.03	.20
Elite support	.10	.16	1.07
Hiring new superintendent	.07	.20	1.30
School board insulation	.23	-.01	.10
Desegregation Technique			
Pairing/clustering and rezoning (0/1)[e]	.30	.19(8.91)[f]	1.10
		R^2 = .36	

[a] Non-South/South

[b] For operationalization see Table 2, pp. 22-23

[c] Noncountywide/countywide

[d] Total school enrollment

[e] Did not use/used

[f] Unstandardized regression coefficient

analysis. The dependent variable, however, represents a separate calculation of the dissimilarity index for each level. For example, the year prior to desegregation, elementary schools had a desegregation score of 69.6 compared to a figure of 59.5 for secondary schools. Following the effort to achieve a unitary system, elementary schools dropped to a segregation level of 40.8, a difference of 29.4. At the secondary level, for the year of desegregation the score was 35.3, which indicates an absolute change of 24.3 points. In brief, among the group of 52 schools the initial level of segregation was higher at the elementary level, but somewhat more change was achieved there than for the secondary level.

Now back to the findings in Table 8. The major differences between the elementary and systemwide level will be highlighted. First, considerably less variance can be accounted for at the elementary level ($R^2 = .36$) compared to the systemwide analysis. And none of the predictor variables reach statistical significance. As far as individual predictor variables are concerned, somewhat surprisingly, the most important at the elementary level is not federal pressure but type of district (with a beta of .30). For the primary grades, countywide districts do especially well. Federal coercion is the next most prominent effect (beta = .28), followed by size of district, superintendent and board support, and the hiring of a new superintendent.

In general, the basic influences are quite similar when the elementary-level findings are compared to those for both levels combined, except for two things. Much less variance can be explained, and federal coercion is not quite as powerful, relatively speaking.

Neither of these two developments are easily explained. Since almost no one else has done a separate analysis by school level, these findings cannot readily be compared to those of other studies. One possibility does come to mind, nonetheless. Apparently parents become more concerned if not threatened when desegregation comes to the early grades (see Hawley, et al., 1981: 17). This is manifested in part by the greater degree of white withdrawal from elementary as opposed to secondary schools (see the previous section, Table 4). This outmigration may also be complicated by the "nonentrance" of white families who have young children and wish to avoid desegregated schools. Rossell (1981: 20) reports that at least in one city evidence shows that some white families moving into a desegregated system tended to place their children in private schools. This may be especially likely where young children are involved. No doubt the variables used here are not very effective in capturing these more subtle psychological processes that may affect the ultimate desegregation outcome.

The other notable difference at the elementary level concerns the relatively less critical role of federal coercion. Again perhaps even the federal courts are not as eager to push for extensive change in the lower grades for fear of further antagonizing white parents. The relatively greater import of countywide districts may have more to do with the differences in choices afforded parents of young children than anything else. The absence of segregated suburban districts may offer parents few alternatives unless they can afford private schools. Thus, avoidance becomes more difficult, contributing to the overall success of the desegregation effort.

The analyses by level also contain one additional feature--the effects of the most promising desegregation strategy (Table 8). In this case, the variable indicates whether or not the district used pairing/clustering and rezoning as the principal technique. Initially, it might be mentioned that the simple correlation between desegregation change and this technique (r=.30) is among the strongest for any predictor variable. Yet when this measure is included with all the others, it does not reach statistical significance. It does add 2 percent to explained variance, however. And its beta weight of .19 is the sixth largest, suggesting that the use of this particular technique does contribute to greater success. In fact, the unstandardized regression coefficient of 8.91 means that if a district uses this strategy at the elementary level it would expect to lower the level of segregation by about nine points,[2] even with all the other influences in the equation taken into account. This is certainly not an inconsequential amount, suggesting again that at least for elementary schools, the specific technique does matter.

The analysis of desegregation change at the secondary level is found in Table 9. Again, the differences between these results and those at the systemwide level will be emphasized. In fact, only one main dissimilarity appears. Among the group of secondary schools, hiring of a new superintendent helps very little (beta = .05). Otherwise, at the secondary level the basic forces shaping desegregation success parallel those for the system as a whole: federal coercion is clearly the most powerful effect followed by size of district.

TABLE 9

EFFECTS OF VARIOUS INFLUENCES ON DESEGREGATION CHANGE AT SECONDARY SCHOOL LEVEL (N=46)

Blocks of Variables	r	Beta	t-score
External Influences			
Region[a]	.35	.35	2.07*
Federal coercion[b]	.40	.50	3.72**
School District Characteristics			
Type of district[c]	.46	.20	1.10
Percent minority	-.26	.00	.00
Size of district[d]	-.13	-.41	2.89**
Desegregation Process Variables[b]			
Supt. and school board support	.27	.34	2.61**
Citizen participation	-.04	.03	.24
Elite support	-.04	-.05	.44
Hiring new superintendent	-.12	.05	.33
School board insulation	.22	-.13	1.00
Desegregation Technique			
Rezoning[e]	.29	.09(3.01)[f]	.72
		R^2 = .55	

* $p < .05$

** $p < .01$

[a] Non-South/South

[b] For operationalization see Table 2, pp. 22-23

[c] Noncountywide/countywide

[d] Total school enrollment

[e] Did not use/used

[f] Unstandardized regression coefficient

The technique of rezoning (used or not used) has also been added to the equation to account for variation in desegregation success among secondary schools. In this case rezoning makes little difference. Even though the simple correlation is .29, the beta is only .09 (not statistically significant), and this variable adds nothing to explained variance. If the unstandardized regression coefficient is examined, it shows that the use of rezoning, as opposed to other techniques, should produce an average decline in segregation levels of about three points.[3] Even though including the desegregation tool in the analysis does not help much, the overall equation predicts desegregation success better at the secondary than the elementary level, $R^2 = .55$. This lack of additional explanatory power for rezoning tends to confirm the earlier bivariate analysis of strategies when elementary and secondary schools are compared. When the most effective strategy at the elementary level (pairing/clustering with rezoning) is employed, somewhat greater desegregation success seems to occur than when rezoning is used at the secondary level. Apparently the application of particular techniques as opposed to others is somewhat more compelling when lower grades are being desegregated as opposed to upper grades.

That region is of some consequence in the multivariate analysis suggests the possibility of somewhat different influences operating within the two areas of the country. To check this, Table 10 provides an abbreviated multivariate analysis of desegregation change by region. Only the best predictor variables have been included here. First, the sizable differences in levels of explained variance might be noted. The five-variable equation for the South yields an R^2 of .58 compared to an

TABLE 10

EFFECTS OF INFLUENCES ON DESEGREGATION CHANGE AT SYSTEMWIDE LEVEL BY REGION (N=50)

	Region			
	Non-South (n=19)		South (n=31)	
Variables by Block	r	Beta	r	Beta
External Influences				
Federal coercion[a]	.36	.47	.36	.46**
School District Characteristics				
Type of district[b]	.26	.16	.38	.25*
Size of district[c]	.15	-.21	-.37	-.36**
Desegregation Process Variables[a]				
Supt. and school board support	.07	.08	.40	.42**
Hiring new superintendent	.07	.17	.09	.25*

* $p < .05$
** $p < .01$

[a] For operationalization see Table 2, pp. 22-23

[b] Noncountywide/countywide

[c] Total school enrollment

R^2 of only .20 for the non-South. Despite this large gap, the only major disparity between the two regions lies with the superintendent and board support variable. Among southern districts this turns out to be a major influence, the second largest of the group (beta = .42). For those districts outside the South, this measure has the least important effect (beta = .08).

One other variation between regions, not shown in Table 10, might be mentioned. If desegregation resistance had been retained in the equation, explained variance would have jumped from .20 to .47 for nonsouthern districts. On the other hand, the opposition variable would add only one percent to R^2 in the South. This suggests that even when other factors are considered, public resistance is strongly related to efforts to end racial isolation in districts outside the South. Perhaps, finally, many southern communities have begun to accept the inevitability of desegregation. So, in many places, when the final plan was promulgated the likelihood of fervent resistance was less than in some northern cities where the event was more sudden and immediately traumatic.[4] Obvious exceptions to this tentative assumption come to mind (e.g., Louisville in the South). Yet the analysis does suggest that at the time of the principal desegregation effort, resistance was more salient in nonsouthern than southern communities.

Other differences by region are not accounted for readily. For example, why should the variables used here be better predictors of desegregation success in the South than in the North? Somewhat more change occurs among the southern districts but not enough in itself to seriously affect the equation's predictive power. One difference in particular might be of some consequence, however. Type of district is a better explanatory measure for the South than the non-South. Although not all the countywide districts in this study are southern, more are found there (18) than outside the South (2).[5] As shown previously the existence of countywide systems tends to be a good predictor of desegregation success. Beyond that, as mentioned above, for some reason school administration commitment is much more effective among southern than northern districts. That dissimilarity represents the other major contrast between the two regions and in itself is not easily explained. Although the actual level of support by region is quite similar ($\overline{X}$ = 2.2 for South; 2.3 for non-South), the consequence is not the same. For whatever reason, in the South public leadership support is critical. Perhaps as Elazar (1966: 92-92) suggests the traditional political culture of the South with its paternalistic flavor induces greater respect for and acquiescence to school authorities. If the school officials have finally given in and accepted the inevitable, perhaps this creates a more favorable overall climate that helps facilitate the dismantling of the dual school system.

In concluding this multivariate analysis of desegregation success, several other issues should be addressed. Some of the desegregation literature suggests that three other variables may influence local desegregation efforts. First, the degree to which a community (school district) is residentially segregated may affect efforts to end racial isolation (see Farley, 1975a; Fitzgerald and Morgan, 1977). Second, if busing is employed as part of the overall local effort to end racial isolation, desegregation success should be enhanced, so the argument goes. As Orfield (1978: 118) puts it: "Often the only choice is the one people most wish to avoid--busing or segregation." Finally, previous literature suggests (see Kirby, et al., 1973; Wegner and Mercer, 1975) that the total desegregation activity (i.e., number of strategies employed) in a district is not, or is only moderately, related to desegregation success. Data are available in this study to offer a limited test of these arguments. When these three variables--residential segregation,[6] busing increase,[7] and total number of techniques used--were added to the systemwide equation in Table 7, the following results emerged:

- An increase in busing as a part of a local desegregation effort is positively but not significantly (.05 level) associated with desegregation success (r=.14; t-score = .14).
- The greater the number of desegregation strategies employed by a district the less desegregation success (beta = -.24; not significant at .05 level).
- Residential segregation is positively and significantly (.05 level) related to desegregation success (beta = .36; t-score = 1.91).
- The N size is reduced from 50 to 38 in this supplementary analysis (data are missing on two of the three variables--busing and residential segregation).
- The predictive power (R^2) of the equation is increased from .55 to .60.

In sum, increases in busing and the number of desegregation strategies employed by districts are only weakly to moderately related to desegregation success. In fact, the more strategies used, the less progress made. In contrast, high levels of residential segregation are positively related to desegregation success, a finding that may be explained best by the substantial gains made in southern communities in reducing racial separation in the schools.

These three variables were not retained in the regression equations reported above for several reasons. First, preserving as many of the cases as possible was considered vital. Second, finding residential segregation positively related to desegregation success raises questions regarding what the residential segregation variable represents. A priori, one might expect reducing racial isolation in the schools to be more difficult in heavily segregated communities. Farley (1975b: 192) states that residential segregation makes school desegregation harder because it increases the necessity for busing, which of course the white community vigorously resists. But here more success is found among districts that are segregated, contrary to expectations. It suggests, of course, that residential segregation is serving as a proxy for some other situation or influence, southerness probably[8] and thus should not be used to "predict" desegregation success. Finally, once it has been established that the desegregation activity score index is negatively related to desegregation success, it is more productive to search for those specific strategies or combination of strategies that facilitate school desegregation.

Summary

This section has offered a multivariate analysis of desegregation change among 52 large school districts based on a model in which the various potential effects on success are depicted. The model postulates that certain basic external forces, particularly federal coercion and region act as a principal determinant of the desegregation process as well as the degree of success achieved. School district characteristics are considered as another basic exogenous influence helping shape the course of desegregation and its level of success. The model also incorporates desegregation process and desegregation strategies as additional elements affecting the degree to which a district has improved its racial balance. The major feature of this analysis distinguishing it from previous efforts lies with the inclusion of the process and strategy measures. Most past attempts to account for desegregation change have not been able to capture these possibly significant forces. The use of the case survey method has enabled this analysis to incorporate these otherwise difficult to obtain data.

The analysis was performed at the systemwide level as well as separately for elementary and secondary schools. The analysis by level was essential to permit the inclusion of the various desegregation techniques, which vary in their use by school level.

At the systemwide level the following influences were especially salient in helping to account for desegregation success (when all other factors were taken into account):

- Federal coercion was the single most powerful force in producing racially balanced schools.
- Greater change in segregation levels occurred in southern rather than northern districts.
- Larger districts (based on enrollment) had less desegregation success than smaller districts (the second most potent influence).
- Countywide districts moved further toward unitary school systems than noncountywide districts.
- Support by school officials tended to improve the prospects for desegregation success.
- Hiring a new school superintendent helped achieve desegregation progress.

Certain differences appeared when the analysis was performed by school level. For elementary schools the most important predictor of desegregation success was type of district (countywide) closely followed by federal coercion. Although not statistically significant the inclusion in the analysis of the most efficacious desegregation technique (pairing/clustering with rezoning) did make a difference. Based on the regression coefficient, the equation predicts that the use of pairing and clustering with rezoning should reduce the level of segregation about nine points, when all other variables are taken into account.

The multivariate analysis for secondary schools closely paralleled that for the systemwide level. The main difference appeared with the lack of importance of hiring a new superintendent at the secondary level. Federal coercion was the most powerful influence for this analysis followed by size of district. When the technique of rezoning (the most widely used and tentatively most effective) was included, it did not contribute much to explaining desegregation success at the secondary level. The equation indicated that rezoning (as opposed to other techniques) should produce an average decline in segregation of about three points.

A somewhat abbreviated analysis by region was also done. Progress toward racially balanced schools could be accounted for statistically much better among southern than nonsouthern districts. Otherwise, only one other major difference by region appeared. Superintendent and board support was much more important in the South than the non-South.

In short, certain desegregation process and strategy variables did prove to be useful predictors of desegregation success. Although variations appeared by school level and by region, school board and superintendent support and to a lesser extent hiring of a new school superintendent helped further desegregation progress. Especially for elementary schools, the use of pairing and clustering with rezoning as the principal technique also contributed to reducing racial imbalance among the 52 districts.

NOTES

1. In completing the case survey instruments, the analyst-readers were unable to respond to some questions. When the instruments were coded and transformed into machine-readable form, nonresponses were given missing data codes. Missing data, of course, may be a problem in any data analysis.

In choosing the variables from the case survey instrument that would be used to create the desegregation process variables (see Table 2), considerable attention was given to the issue of missing data. Following the lead of Yin, Heald, and Vogel (1977), missing data, in those cases where it was theoretically possible to do so, were assigned to a "neutral" category of position. The alternative would be to listwise delete cases that had missing values for one or more of the variables. This proved to be an unacceptable alternative since it would have automatically reduced the number of cases for analysis from 52 to 19.

For the desegregation process variables employed in the present study, Table 11 shows:

(1) those variables that contained missing data codes;

(2) the number of cases for which data were missing;

(3) the category to which the missing data was assigned;

(4) the Pearson product-moment correlation coefficient (r) of the variable with systemwide desegregation success when missing data were assigned to a "neutral" category and when cases containing missing data were excluded.

TABLE 11

DESEGREGATION PROCESS VARIABLES: MISSING DATA SUMMARY AND ANALYSIS

Item	No. of Cases With Missing Data	Category Missing Data Assigned To	Correlation of Variable With Deseg. Change With Missing Data	Correlation of Variable With Deseg. Change Without Missing Data
Court order parameters of plan (Q. 16)	2	NO	.26	.21
Court specify racial balance (Q. 17)	2	NO	.17	.12
Court require outside professional (Q. 62)	2	NO	.30	.35
Citizen participation required (Q. 57)	3	NO	-.14	-.16
Power of citizen group in plan formulation (Q. 59)	4	NONE	-.09	-.10
Power of citizen group in plan implementation (Q. 60)	3	NONE	.01	-.07
School board support (Q. 56)	12	NEUTRAL	.38	.35
Effectiveness of antidesegregation groups (Q. 68)	11	NOT EFFECTIVE	.15	.11
Violence with desegregation (Q. 70)	13	NO VIOLENCE	.27	.28
Nonviolent resistance (Q. 71)	13	NO VIOLENT RESISTANCE	.10	.06

As Table 11 shows, in every case but one (Q. 60) the difference between the two correlation coefficients is not greater than one-half of one percent. Moreover, these differences do not display a consistent pattern of direction. Based on these differences, a systematic bias does not seem to appear when missing data are assigned to neutral categories.

2. The other two strategies previously shown to be potentially effective were also included separately in the analysis in lieu of pairing/clustering with rezoning. They both add an additional 2 percent to explained variance, but neither shows an unstandardized coefficient (b) of the magnitude of pairing/clustering with rezoning (8.91). The b for pairing and clustering (versus all others) is 7.11; for rezoning (against all others) the b is 5.60. This offers additional confirmation that the use of certain techniques rather than others may help achieve desegregation success. It should be remembered, however, that the effects of the three desegregation techniques on desegregation change, when simultaneously assessed with the other predictor variables, are not statistically significant. In fact, with respect to pairing/clustering with rezoning as a desegregation technique, one could not reject the null hypothesis that the regression coefficient equals zero, since zero falls within the 95 percent confidence interval for the regression coefficient (-7.40 to 24.86).

3. Since rezoning was the overwhelming choice of secondary schools and seemed to generally work better than other strategies, no additional techniques were tried in the multivariate analysis. The 95 percent

confidence interval for the regression coefficient (3.01) is -5.16 to 11.18. That is, in 95 percent of all samples the b value for rezoning (versus all others) will range between -5.16 to 11.18.

4. The mean for the factor scores for desegregation resistance by region are as follows: South = -.13; non-South = .19. The higher the scores, the greater the opposition.
5. The correlation between region and type of district is .47.
6. Residential segregation scores are the dissimilarity indices for the principal city (or Standard Metropolitan Statistical Area, where more appropriate) in the district. The source is Van Valley, Roof, and Wilcox (1977).
7. Busing increase is on a scale of 0 to 20, corresponding generally to percentage increases. The median value for the variable is 4.4.
8. The simple correlation (r) between region and residential segregation is .21, indicating that southern communities indeed tend to be more segregated than those in the North.

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IV. THE EFFECTS OF EXTERNAL, SCHOOL DISTRICT, AND DESEGREGATION PROCESS INFLUENCES ON WHITE ENROLLMENT CHANGE

After a brief period of considerable controversy, some agreement now appears regarding the effect of school desegregation on white enrollment decline. Initially, the research by James S. Coleman and associates made big news in 1975 when they announced that white loss in large city school systems was accelerated by school desegregation. The immediate response by some was to question these results, partly because of the method of analysis and the cities used. For example, Rossell (1978b: 153) contends that if the Coleman study had not divided the group of schools into large and small, they would have discovered that school desegregation had no statistically significant effect on white flight. In fact, Rossell's (1975-76) early research found that desegregation did not contribute to white enrollment loss. Other early studies also took issue with the degree of white flight identified in Coleman's work (see Farley, 1975; Giles, 1975; Pettigrew and Green, 1976; Fitzgerald and Morgan, 1977).

More recently, however, a reassessment of the relationship between school desegregation and white flight has begun to appear. In fact, the best summary of the current state of knowledge has been offered by Armor (1978: 8): (1) white enrollment loss is associated with desegregation in some instances; (2) such loss is conditional; it occurs under some conditions but not others; and (3) the effect is seen most clearly in the first year that desegregation takes place. Thus, the current research agenda requires specifying with as much precision as possible those conditions under which desegregation may affect white enrollment. Using the 52 large school districts for which data were collected using the case survey method, this part of the research effort seeks to contribute to that end.

Research Issues Affecting the Analysis of White Flight

Why the differences? Why, even now, do some studies identify a greater degree of white loss resulting from desegregation than do others? As with most complex social research, this question cannot be answered definitively. Yet, some clues do exist. As Armor (1978: 1) points out, the early studies used substantially the same data base--the Office of Civil Rights (OCR) annual ethnic enrollment data. Most of the initial efforts thus were based on enrollment data through 1972 or 1973, prior to court-ordered desegregation in the North. Even so, Coleman's (1975) findings are at odds with several other early studies, especially Farley (1975) and Rossell (1975-76). A brief examination of the major studies, the approaches taken, and the variables used might help determine why certain discrepant findings exist.

Coleman et al's (1975) research might be considered first since it caused such a reaction. Focusing on year-by-year changes in white enrollment and using multiple regression techniques, they estimate the increase in loss of whites as a function of desegregation, proportion black in the school system, the number of students in the system, and the degree of metropolitan desegregation (as a proxy for white suburbs). Separate analyses are performed for northern and southern cities and for large and small districts. Their essential conclusion is that white loss is greatest in large southern central city districts with a sizable percentage black enrollment. This loss is magnified where white suburbs exist around the district. As noted above, Rossell (1978b) believes that the Coleman study would have found very little white flight had it not divided the cities into two groups by size. Coleman's work has also been criticized for the choice of cities (Pettigrew and Green, 1976) and because no effort was made to separate the effects of government-imposed desegregation from other types (Rossell, 1975-76).

Rossell's (1975-76) initial work on white flight should be elaborated upon briefly as well, since it represents a significant variation upon the methods Coleman used. Employing a quasi-experimental design, Rossell divided 86 medium and large-sized northern school districts into those legally required to desegregate and a "control" group under no such orders. She then compares pre-desegregation white loss with post-desegregation losses for both groups of districts. In effect, she finds that all the districts experienced white loss but that court-ordered districts had less white flight than the other group (pp. 688-689). Armor (1978: 6-7) faults this particular study on several grounds. He objects to the use of percentage white enrollment as the dependent variable instead of change in white enrollment. He thinks omission of other factors identified by Coleman as affecting white loss (e.g., proportion black) may have influenced the findings as well. Finally, he notes that Rossell did not take account of other events that might influence white enrollment decline prior to the year of desegregation (e.g., changing demographic characteristics).

A second analysis of white flight has been done by Rossell (1978a). Again she uses a quasi-experimental, interrupted time series design for a time period from 1964 to 1975 with 113 school districts. This time Rossell finds that school districts undergoing extensive desegregation are likely to have sustained a statistically significant white enrollment loss. Only three control districts suffered a significant loss (p. 14). Nonetheless, she observes that proportion black in the district and not desegregation is by far the most important predictor of white loss. Also Rossell confirms that the greatest white outmigration occurs in the year of implementation but that post-implementation losses tend to be less than normal in desegregating districts. This second Rossell study is clearly one of the best done, although Armor (1978: 7-8) still complains that the absence of demographic trends makes it difficult to determine just how much white loss results from anticipatory effects. In addition, Rossell includes only one desegregation plan effect (percentage white and black reassigned), although an interaction term with white reassignment and proportion black $\geq$ 35 percent is the second best predictor of white enrollment decline.

Another study taking a somewhat different approach was done in 1978 by David Armor. He includes only a group of large city districts undergoing court-ordered mandatory desegregation. Armor is especially concerned with anticipatory white loss, which he controls for by applying demographic projections to 23 northern and southern districts with over 20 percent minority enrollment and available suburbs (those most prone to white flight). The method essentially involves a comparison of actual white loss rates with rates projected on the basis of demographic trends. Armor (1978: iii) concludes that court-ordered desegregation produces "both large and long-term" increases in white loss, resulting in growing "ethnic and racial isolation in many larger school districts." Although the idea of taking account of demographic changes sounds appealing, Rossell (1981: 26-27) considers Armor's efforts flawed. In particular, she does not like the way in which he derives his demographic projections.

At least two recent studies might be considered for the light they shed on the controversies surrounding the proper approach to studying white enrollment loss. Giles (1978) works with a group of southern districts located in metropolitan areas that underwent government (court or HEW) enforced school desegregation (also see Giles, Cataldo, and Gatlin, 1975). Using only percentage black to predict enrollment change, Giles examines white loss at both the district and the school level. His principal concern is with the nature of this relationship, e.g., whether or not it is linear. His major finding is that with districts above 30 percent black enrollment, increases in percent black produce an exponential increase in white withdrawal. Yet, districts with less than 30 percent black experienced only moderate white loss, which was unrelated to the level of black concentration. Giles acknowledges that this relationship does not take into account other reasons for white outmigration (e.g., general trends toward suburbanization) and is limited to southern districts.

Finally, a recent study by Farley, Richards, and Wurdock (1980) contends that much of the discrepant findings in this area are the result of the use of different explanatory models. They identify three types--pooled models, means models, and deviations models. In a careful comparison of the three, they conclude that the most appropriate way of assessing the effect of school desegregation on white flight is by using the deviations model. This approach permits a comparison of within-district changes in white enrollment to within-district changes in school desegregation rather than a comparison of such changes across districts. Based on this model, Farley et al. find that an unusually large drop in segregation is associated with a similar large decline in white enrollment, at least in the short run. Over a longer period, however, desegregation could account for only a small part of the total white enrollment change. Although this approach appears especially effective as a way of concentrating on variations within districts, the deviation model tested by the authors does not possess good predictive power. For example, using three predictor variables--percent black, change in level of school desegregation, and metropolitan residential segregation--the deviations from school district means model can only explain 14 percent of the percentage change in white school enrollment (p. 131).

No doubt, Farley, et al. (1980) are correct that at least some of the controversy over desegregation's impact on white enrollment stems from the use of different statistical models. Yet, as Armor (1978) suggests, regardless of the method, agreement has been reached on several issues. Rossell (1978b: 134-135; also see 1981: 46-48) provides the best summary, based on both aggregate research and case studies, on what is now known regarding this relationship. The following points seem to have considerable support:

- School desegregation does indeed accelerate white enrollment decline, primarily because of losses during the implementation year.
- White reassignments to black schools considerably increases white flight.
- White losses are greater from elementary as opposed to secondary schools.
- Phased-in desegregation plans may result in greater white flight than single year implementation plans since the more advance notice white parents receive, the greater the white losses.
- Adverse media publicity may induce greater white losses.
- Above a certain level (30-35%) proportion black in the school system, white flight substantially increases.
- The greater the extent of desegregation resistance (e.g., protests, violence) the greater the white flight.
- White enrollment losses are smaller under metropolitan plans as well as countywide school districts.
- The long-term effects of school desegregation vary by size and type of district and proportion minority. In large central city districts with above 35 percent minority, white enrollment continues to decline as a result of school desegregation.

Some of these propositions appear better established than others. For example, Armor (1978) insists that court-ordered desegregation leads to greater white withdrawal than board-initiated plans. Rossell

(1981: 36) disagrees. In addition, Farley, et al. (1980: 137) also suggest that if national trends in white enrollment change are considered, the effects of proportion minority within a district become less clear. Overall, the relationship is as expected--higher percentage black induces greater white loss (but is not statistically significant). In addition, the Farley study finds that in countywide and smaller districts, the relationship reverses--the effect of the district's racial composition is not in the expected direction. Thus, despite the growing number of studies and the increased analytic sophistication, further research may yield useful results. This would seem especially true where, as is the case here, certain variables concerning the desegregation process itself are available.

The case survey approach used in this research permits the accumulation of considerably more information than is customarily available regarding the various features of the desegregation process itself. Consequently, in the analysis that follows primary emphasis will be placed on explaining white enrollment losses using the four types of influences--external, school district, desegregation process, and desegregation activity--displayed in Figure 1. Similar to most of the comparative studies focusing on white enrollment declines, the dependent variable is a standardized white enrollment measure (proportional white enrollment change) and the between-district model is employed.

Explaining White Enrollment Decline

Before examining the combined effects of a group of variables on white enrollment change, two preliminary analyses might be offered.

Previous research suggests that elementary schools suffer more white losses as a result of school desegregation than do secondary schools (Rossell, 1981: 37). The first table in this analysis will present changes in white enrollment over time by school level. A second question that will be addressed using a bivariate analysis concerns the effects of phased-in plans. As suggested above, where implementation occurs over several years, the white outmigration may accelerate because of the longer notice parents receive. The second table in this section will test that assumption based on data from the 52 districts.

White Enrollment Change by School Level

Table 12 presents the mean white enrollment changes by school level over time. At the systemwide level, prior to desegregation implementation (T-2 and T-1) the school districts lost an average of, respectively, 2.2 and 2.0 percent of their white students. During implementation year the mean white student loss jumped to 9.8 percent, and then returned to approximately pre-implementation levels (2.7%). Clearly, with no other influences considered, desegregation is associated with about a 7 to 8 percent one-time decline in white enrollment.

When districts are divided by school level, some variations appear. As Table 12 reveals, during implementation year elementary schools lost, on the average, 12.1 percent of their white students. In contrast, secondary schools experienced only a 4.7 percent white student enrollment decline. Moreover, pre-implementation losses as well as post-implementation losses are greater at the elementary than the secondary level. In fact, the data lend some support to the notion that when

TABLE 12

MEAN PERCENTAGE CHANGES IN WHITE SCHOOL ENROLLMENT, BY SCHOOL LEVEL

	Time Point[a]					
School Level	(T-2)	(T-1)	(T)	(T+1)	(T+2)	(T+3)
Systemwide	-2.2(N=32)	-2.0(N=43)	-9.8(N=50)	-2.7(N=37)	-2.7(N=39)	-2.7(N=34)
Elementary	-3.1(N=34)	-4.9(N=43)	-12.1(N=47)	-5.1(N=39)	-3.5(N=39)	-4.0(N=33)
Secondary	-1.1(N=28)	-0.3(N=39)	-4.7(N=46)	-2.1(N=39)	-1.8(N=36)	-1.8(N=33)

[a] T equals desegregation implementation year. White enrollment changes are calculated as percentages. For example $(T-2) = \frac{(T-2)-(T-3)}{(T-3)}$.

desegregation efforts are aimed at the elementary school level, greater white flight may occur due to anticipatory effects and the "nonentrance" of young children into the school system (see McConahay and Hawley, 1978; Pride, 1980). For example, two years prior to desegregation implementation, elementary schools lost approximately 3 percent of their white students. The year prior to implementation this percentage increased by almost 2 percent to 4.9. In comparison, both at the system-wide and secondary levels T-1 white student declines are less than T-2 losses.

Finally, Table 12 supports the hypothesis that the effect of school desegregation on white student losses is not long-term (Rossell, 1978a; Farley, et al., 1979; McConahay and Hawley, 1978). Regardless of school level, post-implementation white enrollment changes, while slightly larger, are similar in magnitude to pre-implementation declines.

Phased-In Plans

Does it make a difference if a desegregation plan is "phased-in" (spread out over several years)? Rossell (1981: 35) argues that "phasing-in plans . . . may cause greater white flight than simply implementing a plan in its entirety in one year." The argument is that when desegregation plans are phased-in by school level or over several years, parents are given more time to flee. Thus, this advance notice creates greater white flight.

In order to test the generalizability of this finding, the school districts comprising this study were divided into two groups--districts who spread their desegregation efforts over two or more years (phased-in their plans) and those who completed major desegregation efforts within a single year. Table 13 presents the white school enrollment changes for these two groups.

As Table 13 reveals, the 18 districts employing phased-in plans, on the average, lost 2.5 percent more white students than the 32 districts implementing desegregation within a single year (-11.4% and -8.9%, respectively). But white enrollment losses were also higher the year prior to implementation in districts using phased-in plans (-3.3 compared to -1.3). This means the net loss difference between the two plans is not great--8.1 percent for phased-in plans (11.4 minus 3.3) and 7.6 percent for one-year plans (8.9 minus 1.3). Taking account of pre-implementation loss yields a difference, then, of only .5 between the two types of plans. Moreover, one-year efforts show greater enrollment declines the year following desegregation than phased-in plans (-2.9% compared to -1.6%). So, if losses before and after the period of implementation are considered, phased-in plans appear in a more favorable light.

At this point the data analyzed here offer additional support for certain earlier findings: Desegregation does seem to accelerate white student enrollment losses during implementation year and elementary schools do seem to suffer greater white student losses than secondary schools. The effects of phased-in plans on white enrollment declines is less certain. But prior research also suggests that a host of other external, school district, and desegregation process influences may affect the degree to which school districts may suffer a loss of white students. Utilizing Figure 1 as a theoretical framework, white enrollment

TABLE 13

MEAN WHITE SCHOOL ENROLLMENT CHANGE BY WHETHER DESEGREGATION PLAN WAS PHASED-IN

Variable Category	White Enroll. Chg. Year Prior to Implementation (T-1)[b]	White Enroll. Chg. Implementation Year (T)[c]	White Enroll. Chg. Year After Implementation (T+1)[d]
Phased-in Plan[a]	-3.3(N=15)	-11.4(N=18)	-1.6(N=8)
Nonphased-in Plan	-1.3(N=28)	-8.9(N=32)	-2.9(N=28)
Grand Mean	-2.0(N=43)	-9.8(N=50)	-2.7(N=37)

[a] Primary desegregation effort occurred over two or more years.

[b] Percentage change (T-1)-(T-2)/(T-2).

[c] Percentage change (T)-(T-1)/(T-1).

[d] Percentage change (T+1)-(T)/(T).

changes are now investigated in a multivariate context. That is, employing four types of explanatory variables--external influences, district characteristics, desegregation process variables, and desegregation activity--losses in white school enrollment at the systemwide level from the year prior to desegregation (T-1) to implementation year (T)[1] are explained using multiple regression.

The Multivariate Analysis

Now the multivariate analysis should be considered. First, this equation, which is only for the systemwide level, contains three measures not previously included in the analysis of desegregation success--"suburban escape," average predesegregation white enrollment loss, and the absolute change in desegregation level (T-1 to T). Each of these requires some comment and justification. The suburban escape variable is the least obvious on its face. This measure is operationalized as a ratio when the total school enrollment in the surrounding area (ordinarily the balance of the SMSA enrollment) is divided by total enrollment for the district. Thus, if the outlying area school district enrollment exceeds that of the district in question (usually a central city), the ratio would exceed 1.0. If the surrounding area had a lower total enrollment, the figure used for the district in the study would be less than 1.0. Most countywide districts are assigned a score of 0 on the assumption that little or no escape is possible from such districts without perhaps moving a long distance.[2] The expectation is that where this ratio is high, indicating escape potential, white enrollment loss will also be high.

The second "new" variable is the average predesegregation white enrollment change.[3] This is incorporated in the equation as a way of controlling for the general tendency of most of these districts to have lost whites prior to plan implementation. In a way, this takes account of the host of additional social and economic influences contributing to white loss. Such factors as central city crime rate, unemployment rate, or even suburban attraction variables (such as housing availability) have not been directly included in this analysis, for several reasons. First, as just suggested, the use of a predesegregation white loss variable represents a reasonable proxy for these influences. Second, the addition of several more explanatory measures causes an undesired loss of degrees of freedom in the equation.[4] Third, these measures are not necessarily good predictors of white flight.[5] Finally, to the extent white loss at T is merely a continuation of predesegregation trends, the measure used here should help capture that development. This variable should be positively related to white enrollment loss at the year of desegregation.

The third additional variable to the white flight equation is a measure of absolute change in desegregation. Without such a variable, of course, no test of desegregation's potential effect on white flight would be possible. The most recent research, reviewed above, suggests that desegregation will indeed contribute independently to white enrollment loss.

Before assessing the simultaneous effects of the four types of variables on white enrollment declines, the simple correlations (r) might be examined. With respect to the four external influence variables, suburban escape and average pre-desegregation white enrollment losses display the highest Pearson product-moment correlations (r) with white enrollment losses, .32 and .52, respectively; and both are in the expected direction. That is, the greater the availability of alternative schools in the metropolitan area and the greater the pre-implementation white student losses, the greater the loss of white students during desegregation implementation. As expected, southern region is negatively associated with enrollment declines (r= -.09), and federal coercion is positively associated with losses (.04). But both correlations are rather weak.

Of the three school district characteristics, in the bivariate case, percentage minority is quite prominently related to white enrollment declines (r=.64). Countywide school districts are negatively associated with losses (r= -.41), and as prior research suggests larger school districts suffer more white student losses (r=.25).

An examination of the simple relationships between the six desegregation process variables and white flight shows that citizen participation (r=.12), desegregation resistance (r=.37), and hiring a new school superintendent (r=.15) are positively associated with enrollment declines. While not intuitively appealing, citizen participation in the desegregation process may contribute to the exodus of white students. That desegregation resistance may prompt white exodus, however, is not unexpected. The positive correlation between the hiring of a new superintendent and white student losses also is not surprising. In some districts, school officials bring in a new superintendent to expedite local desegregation efforts. And Rodgers and Bullock (1976) suggest such a move may result in significant school desegregation. In short, public debates (citizen participation), violent or non-violent protests and demonstrations (desegregation resistance), and strong leadership in the form of a new school superintendent may arouse public awareness of impending desegregation efforts and contribute to white withdrawal from local schools.

In contrast, the relationship of the other three desegregation process variables--elite support (r= -.02), superintendent and school board support (r= -.22), and school board insulation (r= -.22) are negatively related to the loss of white students. These relationships are also in the expected direction. Media, white community leaders, and school elite support of local desegregation efforts should help minimize suspicions and fears about the desegregation process and thereby reduce white flight.

Finally, in the simple case, desegregation change is found to be unrelated to white student losses. In fact, as Table 14 shows the simple correlation between the absolute change in the level of segregation during implementation year and white enrollment loss during implementation year is negative (r= -.04), indicating that the greater the change in desegregation the less the loss of white students. As will be shown below, however, desegregation activity behaves quite differently in the multivariate analysis.

Although simple relationships may provide some useful initial insights, the simultaneous effects of the variables on white enrollment change are of primary concern here. The beta weights shown in Table 14 indicate the relative importance of each variable while controlling (statistically) for all other variables in the regression equation.[6]

TABLE 14

FACTORS INFLUENCING WHITE ENROLLMENT LOSSES DURING DESEGREGATION IMPLEMENTATION YEAR (N=43)[a]

Blocks of Variables	r	Beta	t-score
External Influences			
Region[b] (0/1)	-.09	-.29	1.91*
Federal coercion[c]	.04	-.06	.46
Suburban escape[d]	.32	.12	.83
Avg. pre-deseg. white enroll. loss[e]	.52	.13	1.03
District Characteristics			
Type of district[f] (0/1)	-.41	-.18	1.22
Percent minority	.64	.57	3.94**
Size of district[g]	.25	.37	2.46**
Desegregation Process Variables[c]			
Citizen participation	.12	-.07	.74
Desegregation resistance	.37	.23	1.87*
Elite support	-.02	.05	.43
Supt. and school board support	-.22	-.03	.30
School board insulation	-.22	-.07	.66
Hiring new superintendent	.15	-.01	.10
Desegregation Activity			
Absolute change in deseg. (T-1 to T)	-.04	.40 (b=.002)[h]	2.58**
		$R^2 = .75$	

* $p < .05$.

** $p < .01$.

[a] Nine districts were not included for analysis since a T-2 time point was not available for the calculation of a pre-desegregation white enrollment loss control measure (see note e) Richmond, CA; Escambia County, FL; Orange County, FL; Polk County, FL; Volusia County, FL; DeKalb County, GA; Peoria, IL; Wichita, KS; Tacoma, WA.

[b] Nonsouth-South

[c] For operationalization see Table 2, pp. 22-23.

[d] Ratio between suburban ring total school enrollment and district school enrollment. The larger the ratio the more availability of suburban schools in the area.

[e] Percentage white student enrollment change between T-3 and T-1 summed and divided by the appropriate number of time points.

[f] Noncountywide/countywide.

[g] Total school enrollment.

[h] Unstandardized partial regression coefficient.

As Table 14 reveals, in the multivariate case, five variables have a statistically significant impact on white enrollment loss. In order of their importance the five variables are: (1) percent minority (b=.57)--the larger the percent minority in the school district the greater the white enrollment decline; (2) desegregation change (b=.40)--the larger the absolute change in the level of segregation during implementation year the greater the white enrollment loss; (3) size of school district (b=.37)--the larger the total school enrollment the greater the white enrollment decline; (4) region (b=.29)--enrollment losses are smaller in southern than in nonsouthern districts; and (5) desegregation resistance (b=.23)--the greater the desegregation resistance the larger the loss of white students.

In addition, while not statistically significant, three other effects are noteworthy. The suburban escape indicator (availability of other schools in the metropolitan area) and average pre-desegregation white enrollment losses (control measure for pre-implementation white student loss trend) are positively related to white enrollment decline, b=.12 and .13, respectively. And countywide districts are negatively associated with losses (b= -.18). In total, the 14 variables can explain 75 percent of the variation in white enrollment decline at the systemwide level.[7]

Although the findings from the multivariate analysis are not particularly surprising and are generally supported by previous research efforts, one question remains. Why is desegregation success unrelated to white enrollment losses in the bivariate case, but significantly related to white enrollment declines when other effects are held constant? Rossell (1981: 32) suggests a possible explanation:

> Virtually all . . . aggregate studies have detected a significant interaction effect between percentage black and the extent of desegregation in terms of their effect on white flight. That is, a school district or school with a large proportion of students who are black will have more white flight with a given desegregation plan than will a school district with a small proportion of students who are black.

A statistically significant interaction effect between percent minority and desegregation change in the present study was not found.[8] Nevertheless, the findings here suggest that when desegregation occurs in certain types of districts, white loss during the implementation year may be substantial. In particular, among large, nonsouthern districts with high proportion minority, which have experienced considerable community resistance, desegregation is especially likely to contribute to white withdrawal.

But what about post-implementation losses: Does implementation year desegregation efforts produce long-term white student losses? The earlier preliminary analysis of mean white enrollment declines over time suggested not. In fact the analysis showed that after desegregation, post-implementation white student losses are only slightly larger than pre-implementation losses (see Table 12). To assess the post-implementation impact of desegregation actions on white withdrawal, post-implementation white student losses were averaged and regressed on the eight best predictors of implementation year losses--region, type of district, percent minority, size of district, desegregation resistance, suburban escape, average pre-implementation losses, and implementation year desegregation change. Table 15 summarizes the results of this exercise.

TABLE 15

FACTORS INFLUENCING POST-DESEGREGATION WHITE ENROLLMENT LOSSES (N=30)[a]

Variables	r	Beta	t-score
Region (0/1)[b]	-.08	.01	.10
Suburban escape[c]	.45	.25	1.20
Avg. pre-implementation white enrollment loss[c]	.49	.25	1.41
Type of district (0/1)[d]	-.52	-.27	1.26
Percent minority	.52	.29	1.56
Size of district[e]	.01	.07	.33
Desegregation resistance[f]	-.09	-.19	1.20
Absolute change in deseg. (T-1 to T)	-.34	.00	.00
		$R^2 = .55$	

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[a] The N size was reduced to 30 since percent white school enrollment change could not be calculated because T-2 or T+1 was missing for certain districts.

[b] Nonsouth/South.

[c] See Table 14, notes d and e.

[d] Noncountywide/countywide.

[e] Total school enrollment.

[f] See Table 2, pp. 22-23.

As Table 15 shows, the best predictor of post-implementation white enrollment losses is the percentage of minority pupils in the school system (b=.29). In addition, the availability of suburban schools as well as pre-implementation white student losses are also good predictors (b=.25 for both variables). Countywide districts continue to lose fewer white students than do noncountywide districts (b= -.27). And surprisingly, desegregation resistance becomes negatively related (b= -.19) to post-implementation enrollment declines. None of the relationships, however, are statistically significant, although explained variance (R^2) is .55.

Finally, Table 15 reveals implementation year desegregation efforts are totally unrelated to post-implementation white enrollment losses (b=.00). Thus, one might argue that while desegregation efforts may accelerate white student withdrawal during implementation year, post-implementation losses are a function of other forces, especially the percentage minority in the school, the availability of alternative schools in the metropolitan area, pre-desegregation enrollment losses, and whether the district is countywide in area.

Summary

The primary purpose of this section was to assess the independent effect of four types of influences--external, school district, desegregation process, and desegregation activity--on white enrollment losses during the year of school desegregation. Before examining these multivariate relationships, white enrollment losses over time and the impact of phasing-in desegregation efforts were investigated. In brief, the results of these preliminary analyses confirmed previous research findings that: (1) desegregation efforts accelerate white enrollment declines during implementation year; (2) elementary schools experience greater white student losses than secondary schools; and (3) phasing-in a desegregation plan may result in greater white student withdrawal than implementing a plan in a single year.

When implementation year white student enrollment declines at the systemwide level were explained in a multivariate context, the following findings emerged.

- Percent minority in the school system was the single most powerful predictor of white student losses.
- Desegregation success (absolute change in level of segregation) resulted in greater white enrollment decline.
- Larger districts (based on enrollment) experienced greater white student withdrawal than smaller districts.
- Enrollment declines were smaller in southern, countywide districts than in nonsouthern, noncountywide districts.
- Districts that experienced greater desegregation resistance lost more white students.
- The availability of other schools in the metropolitan area as well as pre-implementation white enrollment losses were positively related to implementation year enrollment declines.

When the eight best predictors of implementation year white enrollment declines were included in a multiple regression equation to explain post-implementation white student losses, once again percent minority in the school system was the most powerful predictor. In addition, the availability of alternative schools in the metropolitan area and a pre-implementation loss trend were also good predictors of post-implementation white withdrawal. But, unlike during implementation year, desegregation activity was found to be unrelated to post-implementation white losses.

In conclusion, the results of the analyses reported here are not particularly novel or surprising and tend to conform findings reported in other research. It should be noted, however, that many of the proposed relationships reported in previous research are based on singular case studies. In contrast, in the present study various aspects of the desegregation efforts of 52 school districts were systematically assessed using the case survey method. Thus, this study not only supports previous findings but also enhances the generalizability of these findings.

NOTES

1. Some districts gained white students during desegregation implementation (primarily countywide southern districts). Since we wished to explain white enrollment decline, the variable scores were reversed (multiplied by minus 1).
2. Enrollment for most countywide districts was identical or virtually so with the SMSA enrollment. In a few instances estimates were made. For example, it did not seem appropriate to use the total non-central city SMSA school enrollment for the Washington, D.C., metropolitan area to create the measure for Prince George's County. Instead, the enrollment figure for an adjacent district (Montgomery County) was used. Likewise, the total figure for the metropolitan area outside of Los Angeles did not seem valid for use in creating the suburban escape variable for rather small Pasadena. Instead the enrollment figure for a nearby similar district (Glendale) was used to represent the possible escape area. Data are for 1971 and come from U.S. Bureau of the Census (1972: Table 19).
3. Percentage change in white school enrollment between T-3 and T-2 and T-2 and T-1 were summed and divided by two if both percentages could be calculated; otherwise, T-2 to T-1 change was used. The variable was reversed to reflect enrollment declines.
4. The equation in Table 14 contains 14 predictor variables, which seems to be the upper limit for an N of 52 without seriously exhausting the essential degrees of freedom for least squares regression. Any increases in explained variance would likely be the result of

the mere addition of new independent variables and would not be substantively meaningful.

5. This is especially true of various efforts to measure the negative features of central city life. Rossell (1978a: 17) finds that neither crime rate nor employment rate are statistically significant predictors of white enrollment change. On the other hand, researchers using certain proxies for "suburban appeal" such as total new suburban dwellings have found such measures importantly related to white movement to the suburbs (see Marshall, 1979).

6. Similar regression analyses were also performed across school levels. In general, the impact of the variables on white enrollment losses are the same at both the elementary and secondary school level. A few minor differences did emerge, however. At the secondary level the suburban escape indicator was not important (b= -.03). In contrast, at the elementary level it was the fourth best predictor (b=.21), following percent minority (b=.44), district size (b=.34), and desegregation change (b=.50). At the secondary level the variables were able to account for 76 percent of the variation in white enrollment decline. At the elementary level, the R^2 was .50.

7. While there are conflicting findings, some studies have found that greater busing distances produce greater white flight (see Rossell, 1980; for opposite findings see Giles, Gatlin, and Cataldo, 1974). Unfortunately, we were able to collect such data in the present study. However, when we added an indicator of increases in busing due to local desegregation efforts to the regression equation, the explained variance increased by 1 percent (to 76%). And the beta for the

variable was a -.18, indicating that increases in busing are negatively associated with enrollment declines. Since the inclusion of the variable would have further reduced the N size to 37 and since the effect of the variable was not statistically significant, it was not used in the final equation.

8. In order to test for an interaction effect between percentage minority and desegregation change, hierarchical regression was employed (see Cohen and Cohen, 1975: Chap. 8). First, desegregation change and percent minority were used to predict implementation year white enrollment losses. Then a multiplicative desegregation change and percent minority interaction term was added to the equation. The results of the analysis showed that while the interaction term could explain 2 percent more of the variance in white enrollment declines than the two variables singularly, the F-value of the addition to R^2 was not statistically significant ($F=1.44$, require an F-value of 4.09 to be significant at .05 level).

In addition to a potential interaction effect between desegregation change and percent black, previous literature also suggests that the relationship between percent black and white student withdrawal may be nonlinear (see Giles, 1978). The argument is that after a district's percent minority enrollment reaches a certain threshold or "tipping point" (around 30%), white enrollment losses increase exponentially. To check for such a nonlinear relationship here, three tests were employed. First, a scatterplot between percent minority and white enrollment decline was visually examined. This examination clearly reveals a linear relationship ($r=.65$). Second, employing the same multiple regression procedure used by Giles (1978) to test for nonlinearity, white enrollment decline was regressed on two variables--percentage minority and percentage minority squared. Percentage minority squared is a quadratic term representing the possible exponential effect of percentage minority on enrollment loss. The quadratic term in this equation was not statistically significant, indicating that the relationship between proportion minority and white flight is linear.

Finally, as a third test hierarchical regression was employed. First, white loss was regressed on percentage minority and then the quadratic term (percentage minority squared) was added to the equation. The additional quadratic term added virtually nothing to explained variance (R^2 increased from .417 to .418), again revealing that the relationship is linear. In short, no support for a threshold effect was found.

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V. CONCLUSION

The objective of this research was to assess the effect of certain conditions and influences on school desegregation success and white enrollment decline among large U.S. school districts. Much of the data was gathered using a relatively new approach, called the case survey method, that involves the use of an instrument to record various features of the desegregation process that appear in the case literature so it can be quantified, aggregated, and systematically analyzed. An exhaustive search of the case literature, both published and unpublished, yielded 52 usable cases that met three selection criteria:

(1) the major desegregation action had to occur between 1968 and 1976 (the dependent variables were limited to that time period);

(2) total school enrollment had to exceed 20,000 students (to qualify as a "large" district);

(3) the percentage minority in the school system had to equal or exceed 10 percent.

The analysis of desegregation success proceeded in two stages. First, a preliminary effort was made to gauge the efficacy of certain strategies or techniques in reducing racial isolation and in minimizing white enrollment loss. Although this analysis consisted primarily of a set of bivariate tables, several noteworthy results emerged. First, unlike previous research testing the effects of desegregation strategies in an aggregate context, this analysis did find that certain specific techniques might make a modest contribution to improving racial balance. Those elementary schools using rezoning in combination with pairing and clustering as their principal technique not only achieved more reduction in levels of segregation (based on the index of dissimilarity) than those using other techniques, such schools also had less white enrollment loss. A similar finding appeared for secondary schools. Here the technique that contributed most to desegregation success was rezoning. White flight was lower for this technique in comparison with others, as well.

Busing was also included in the bivariate analysis. When districts were divided at the median on a measure of busing increase, those above the average attained somewhat greater racial balance than the other group. But those with more busing also experienced somewhat greater white enrollment losses. Since the busing data were not as consistent as most of the other information and the analysis was only bivariate, these findings should be considered as tentative and inconclusive.

A multivariate analysis of desegregation success was offered next based on a model in which the basic influences were grouped into four categories—external forces, school district characteristics, desegregation process variables, and desegregation strategies. External forces were represented by region (North/South) and a measure of federal coercion. School district characteristics included type of district (countywide/noncountywide), percentage minority, and size (total enrollment). Five desegregation process variables were incorporated in the multiple regression equation—superintendent and board support, citizen participation, elite support, hiring of a new superintendent, and school board insulation. Finally, the most effective desegregation technique was included as a dummy variable (used/not used). The analysis was performed for the entire school system as well as by school level (elementary or secondary). The desegregation technique measure was used only in the equation for each level, since the most successful strategy varied by level. This analysis differed from previous efforts to assess desegregation change at the aggregate level in one primary respect. It incorporated desegregation process measures and the desegregation technique variable. The use of the case survey method allowed the inclusion of these potentially important effects, which otherwise would be difficult to obtain.

At the systemwide level the following variables had the greatest effect on desegregation success (when all other factors were statistically controlled):

- o Federal coerion was the single most powerful force in reducing racial isolation.
- o Larger districts achieved less racial balance than smaller districts.
- o Southern districts had greater desegregation success than those outside the South.
- o Countywide districts improved racial balance more than did noncountywide districts.
- o Support by school officials helped achieve desegregation progress.
- o Hiring a new school superintendent tended to improve the prospects for desegregation success.

Certain differences were apparent when separate multivariate analyses were conducted by school level. For elementary schools county-wide district was the best variable predicting desegregation success, closely followed by federal pressure. Although not statistically significant the inclusion of the most effective desegregation technique (pairing/clustering with rezoning) did make some difference in the expected direction. Elementary schools using this technique could expect somewhat greater success than those choosing another course of action.

The multivariate analysis for secondary schools produced results similar to the systemwide analysis. The principal discrepancy was the failure of the variable "hiring a new superintendent" to contribute much to reducing racial isolation. Federal coercion was the best predictor at this level followed by size of district. The use of rezoning as the principal technique did not add significantly to explaining desegregation success.

A somewhat truncated analysis of changes in segregation levels was also done by region. Only one major difference appeared. Superintendent and board support was of considerably greater importance in the South than outside that region.

A second major multivariate analysis was of white enrollment change. The same basic research model was employed with the addition of three new variables. Two more measures of external conditions were added--a proxy for the potential for families to flee the district (called "suburban escape") and the rate of pre-implementation white enrollment loss. This second measure was included to represent two trends:

(1) the extent to which other social and economic conditions might contribute to white outmigration, and (2) the degree to which white loss at the year of desegregation might be a mere extension or continuation of previously occurring white student declines. The white flight equation contained one more new variable--desegregation success, measured as the absolute change in level of segregation for the year prior to implementation to the year of implementation.

A preliminary examination of changes in white enrollment over several years indicated that desegregation is associated with a one-time abnormal white student loss. Elementary schools suffered more white outmigration than did secondary schools. Although the evidence was not overwhelming, there was some indication that phased-in plans contributed to slightly more white loss than those plans implemented in only one year.

When white student enrollment declines at implementation year were subjected to multivariate analysis, the following statistically significant results were reported (when controlling for all other effects):

- Percentage minority in the school system was the single strongest effect contributing to white withdrawal.
- Desegregation success resulted in greater white enrollment decline.
- Larger districts experienced greater white loss than smaller districts.

- Those districts with greater desegregation resistance had larger white losses than those with less opposition.
- Nonsouthern systems suffered more white student outmigration than did southern districts.

Two other findings seem worth mentioning. In a multivariate analysis of post-implementation white student loss, no relationship was discerned between desegregation success and white flight. School desegregation is related to white withdrawal at only one time period--the year of implementation. And, no threshold effect for percentage minority enrollment was discovered. In other words, the relationship between percentage minority and white withdrawal was substantially linear.

The policy implications of this research might be highlighted further. It should be emphasized immediately, however, that research such as this cannot provide a set of precise blueprints for policy makers and the judiciary to follow. Several useful practical guides to action already exist (see Smith, Downs, and Lachman, 1973; Forehand and Ragosta, 1976; Hughes, Gordon, and Hillman, 1980). Rather the purpose here is to present more general guidance, suggestions, and ideas that might prove helpful to those responsible for taking whatever action is necessary to further the larger goal of bringing greater racial balance to the nation's public schools. Furthermore, these findings and proposals must be modified and adapted to meet local conditions. In no way should any of the following suggestions and findings be implemented without careful examination and thoughtful consideration. The local social, racial, and political context undoubtedly will make certain proposals far more appropriate in some places than in others.

Specifically, what particular findings seem most policy relevant? First, and perhaps most obviously, the federal presence constitutes the single most powerful force in producing desegregation success. This research provides little support to those who might hope that local school districts will somehow achieve effective desegregation with voluntary efforts. Federal pressure remains essential. Second, what about strategies? In brief, the particular desegregation technique(s) does make some difference, particularly at the elementary level. For elementary schools the evidence suggests the following:

- Pairing and clustering in combination with rezoning seems likely to yield the greatest success not only in achieving racial balance but in minimizing white flight.
- The use of a number of techniques does not assure greater desegregation success.
- Active, overt support of the desegregation effort by school officials should facilitate the reduction in racial isolation.

For the desegregation of secondary schools, the specific technique employed does not matter much. The most popular approach has been rezoning. The bivariate analysis indicates that, in fact, this strategy may prove somewhat more effective than others. But when other potential influences are considered simultaneously, the use of rezoning has little import for overall desegregation success. Nonetheless, since rezoning is a relatively simple technique to apply and is widely used, these findings suggest it should probably be considered the strategy of first resort for secondary schools.

Several other points might be made. First, school officials should not be discouraged or unduly upset at the appearance of public opposition to desegregation. This likely signifies that the plan is indeed apt to achieve considerable success in reducing racial separatism, although such opposition may accelerate white withdrawal.

Second, certain events and procedures associated with the desegregation process--citizen participation and community elite support--do not contribute much to the level of desegregation success. Hiring a new superintendent may help at the elementary level, especially in the South. This is not to suggest that desegregation process variables should be ignored. To the contrary, this research indicates that desegregation success depends on considerably more than federal coercion. In addition to community and district-level forces, certain events and developments associated with the desegregation process itself may contribute importantly to the overall degree of success achieved.

Third, this research lends support to those who are skeptical about magnet schools. For these 52 districts, communities relying primarily on magnets alone or in combination tended to have less desegregation success than those systems employing the more efficacious techniques discussed above.

Finally, what about busing? Most of these desegregating districts did indeed increase the degree of school-supported student transportation. Some limited evidence suggests, however, that the degree of busing is only tangentially related to the amount of success achieved. Reductions in racial isolation are only marginally related to increases in busing. This implies that considerable desegregation can be achieved without massive increases in busing.

With regard to white flight, this research does not offer much that is new. Yet this in itself may be quite important. This analysis tends to confirm the most recent findings that some degree of one-time white student loss is inevitable at the year of desegregation. Some of this withdrawal will likely occur regardless of what school officials do. Avoiding phased-in plans may help reduce the loss slightly. The more effective desegregation techniques were also shown to be somewhat less likely to be associated with large white withdrawal. Although desegregation opposition tends to induce more white outmigration, this may be something over which local officials may have little control. Yet as Hawley, et al. (1981: 61-65) point out, it is up to the school district and other local leaders to deal with the anxieties and fears that parents have. These authors suggest that positive media coverage may allay some parental concerns and that every effort should be made to provide parents with clear and full information about the desegregation plan and its implementation. Increases in busing appear to have little impact on white flight when other factors are taken into account. It does seem clear, to repeat, that the desegregation-related loss is _not_ long term.

Finally, districts that encompass as much of the larger area as possible seem to suffer less white withdrawal. Countywide districts, in this case, tended to achieve greater desegregation success as well. To the extend the courts or state governments can facilitate the creation of metropolitan districts, white flight should be lessened and more effective desegregation remedies should be possible. Although _Milliken_ v. _Bradley_ remains a formidable obstacle, this research supports the widely held view that "metropolitan plans are highly effective strategies for reducing racial and class isolation" (Hawley, et al., 1981: 39).

In conclusion, this research represents one of the few efforts to include process and technique variables in an aggregate analysis of school desegregation outcomes. The case survey approach has permitted the accumulation and aggregation of diverse desegregation experiences among 52 large U.S. districts. Most were compelled to desegregate under federal mandate. Yet the findings here confirm that federal coercion, while crucial, is only one among many forces shaping the final desegregation outcome. Indeed, a variety of actions can be taken by local, state, and perhaps national policy makers to facilitate the creation of equitable and effective desegregation plans. No precise set of guidelines was provided here. But, it is hoped that some of these findings will be useful to those who must continue the search for workable and acceptable solutions to the enduring problem of racially segregated schools.

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APPENDIX A

CASE SURVEY INSTRUMENT

University of Oklahoma

Bureau of Government Research

DESEGREGATION CASE SURVEY INSTRUMENT

District and Community Characteristics

1. City name and school district: ____________________
2. County-wide district: ____________________
3. State: ____________________
4. Region: ____________________
5. Population (1970): ____________
6. Percent black (city, 1970): __________
7. Percent minority (city, 1970): ________
8. Income (1970): ______________
9. Ethnicity (1970): ____________

Not Sure

Desegregation Plan Background

(x)

___ 10. Source of desegregation plan impetus:
- _____1. Local board
- _____2. HEW
- _____3. Court order

___ 11. Plan formulated by:
- _____1. Local school
- _____2. Consultants appointed by school board
- _____3. Consultants appointed by court _____4. HEW

___ 12. Public hearings held during plan formulation:
- _____1. No
- _____2. Yes

___ 13. School year plan first implemented: E_____J/M_____H_____

___ 14. School year plan completed: E_____J/M_____H_____

___ 15a. Was plan implemented within time schedule:
- _____1. No
- _____2. Yes

15b. Year of first major case or significant impetus for desegregation or the reopening of an earlier case, which resulted in the extant desegregation plan: ______________________________

Court Involvement in Plan

___ 16. To what degree did the court order specify the parameters of the plan regarding the techniques to be implemented?
- _____1. None
- _____2. Suggestions/recommendations/guidelines
- _____3. Specific plan or technique ordered

___ 17. To what degree did the court specify the racial balance to be attained by desegregation?
- _____1. None
- _____2. Recommended minimum and maximum racial balance
- _____3. Ordered mimimum and maximum racial balance

Desegregation Plan Techniques

The following questions pertain only to the Elementary School level (check the number that applies to this city):

___ 18. Voluntary open enrollment, freedom of choice:
_____1. None
_____2. Light
_____3. Moderate
_____4. Heavy
_____5. Total

___ 19. Constructing new schools in minority, mixed, or "neutral" neighborhoods:
_____1. None
_____2. Light
_____3. Moderate
_____4. Heavy
_____5. Total

___ 20. Pairing or clustering:
_____1. None
_____2. Light
_____3. Moderate
_____4. Heavy
_____5. Total

___ 21. Magnet-only plan (schools with special programs open to any student who wishes to attend, either on a part-time or full-time basis):
_____1. None
_____2. Light
_____3. Moderate
_____4. Heavy
_____5. Total

___ 22. Magnet-mandatory plan (where magnet schools are one component of a mandatory plan):
_____1. None
_____2. Light
_____3. Moderate
_____4. Heavy
_____5. Total

___ 23. Rezoning or school closing (the placement of school attendance boundaries to include both majority and minority race children in every possible school within the zone. School closing is also included):
_____1. None
_____2. Light
_____3. Moderate
_____4. Heavy
_____5. Total

___ 24. Education Parks (a centrally located single facility which replaces other schools previously in the area):
_____1. None
_____2. Light
_____3. Moderate
_____4. Heavy
_____5. Total

*25. Estimate the amount of busing before the plan was implemented (zero being none; 10 indicates very extensive)

white only

____ % __________ exact no. __________

____ 0 1 2 3 4 5 6 7 8 9 10

minorities only

____ % __________ exact no. __________

____ 0 1 2 3 4 5 6 7 8 9 10

total

____ % __________ exact no. __________

____ 0 1 2 3 4 5 6 7 8 9 10

*26. Estimate the amount of busing taking place after plan implementation (zero being none; 10 indicates very extensive)

white only

____ % __________ exact no. __________

____ 0 1 2 3 4 5 6 7 8 9 10

minorities only

____ % __________ exact no. __________

____ 0 1 2 3 4 5 6 7 8 9 10

total

____ % __________ exact no. __________

____ 0 1 2 3 4 5 6 7 8 9 10

*27. Estimate the approximate increase in busing as a result of the plan (zero being none; 10 indicates extremely large)

white only

____ % __________ exact no. __________

____ 0 1 2 3 4 5 6 7 8 9 10

Cont.

*Although originally intended for elementary schools only, busing data was recorded here for the entire district (see text for discussion).

___ 27. Cont.

minorities only

___ % _________ exact no. _________

___ 0 1 2 3 4 5 6 7 8 9 10

total

___ % _________ exact no. _________

___ 0 1 2 3 4 5 6 7 8 9 10

The following questions pertain only to the junior high or middle school level (check the number that applies to this city):

___ 28. Voluntary open enrollment, freedom of choice:
_____1. None
_____2. Light
_____3. Moderate
_____4. Heavy
_____5. Total

___ 29. Constructing new schools in minority, mixed or "neutral" neighborhoods:
_____1. None
_____2. Light
_____3. Moderate
_____4. Heavy
_____5. Total

___ 30. Pairing or clustering:
_____1. None
_____2. Light
_____3. Moderate
_____4. Heavy
_____5. Total

___ 31. Magnet-only plan (schools with special programs open to any student who wishes to attend, either on a part-time or full-time basis):
_____1. None
_____2. Light
_____3. Moderate
_____4. Heavy
_____5. Total

___ 32. Magnet-mandatory plan (where magnet schools are one component of a mandatory plan):
_____1. None
_____2. Light
_____3. Moderate
_____4. Heavy
_____5. Total

___ 33. Rezoning or school closing (the placement of school attendance boundaries to include both majority and minority race children in every possible school within the zone. School closing is also included):

- ______1. None
- ______2. Light
- ______3. Moderate
- ______4. Heavy
- ______5. Total

___ 34. Education Parks (a centrally located single facility which replaces other schools previously in the area):

- ______1. None
- ______2. Light
- ______3. Moderate
- ______4. Heavy
- ______5. Total

~~35. Estimate the amount of busing before the plan was implemented (zero being none; 10 indicates very extensive)~~

(Questions 35, 36, & 37 were omitted)

~~white only~~

___ ~~% ______ exact no. ______~~

___ ~~0 1 2 3 4 5 6 7 8 9 10~~

~~minorities only~~

___ ~~% ______ exact no. ______~~

___ ~~0 1 2 3 4 5 6 7 8 9 10~~

~~total~~

___ ~~% ______ exact no. ______~~

___ ~~0 1 2 3 4 5 6 7 8 9 10~~

~~36. Estimate the amount of busing taking place after plan implementation (zero being none; 10 indicates very extensive)~~

~~white only~~

___ ~~% ______ exact no. ______~~

___ ~~0 1 2 3 4 5 6 7 8 9 10~~

~~minorities only~~

___ ~~% ______ exact no. ______~~

___ ~~0 1 2 3 4 5 6 7 8 9 10~~

~~total~~

___ ~~% ______ exact no. ______~~

___ ~~0 1 2 3 4 5 6 7 8 9 10~~

~~37. Estimate the approximate increase in busing as a result of the plan (zero being none; 10 indicates extremely large)~~

~~white only~~

~~___ % ______ exact no. ______~~

~~___ 0 1 2 3 4 5 6 7 8 9 10~~

~~minorities only~~

~~___ % ______ exact no. ______~~

~~___ 0 1 2 3 4 5 6 7 8 9 10~~

~~total~~

~~___ % ______ exact no. ______~~

~~___ 0 1 2 3 4 5 6 7 8 9 10~~

The following questions pertain only to the high school level (check the number that applies to this city):

___ 38. Voluntary open enrollment, freedom of choice:
- ______1. None
- ______2. Light
- ______3. Moderate
- ______4. Heavy
- ______5. Total

___ 39. Constructing new schools in minority, mixed or "neutral" neighborhoods:
- ______1. None
- ______2. Light
- ______3. Moderate
- ______4. Heavy
- ______5. Total

___ 40. Pairing or clustering:
- ______1. None
- ______2. Light
- ______3. Moderate
- ______4. Heavy
- ______5. Total

___ 41. Magnet-only plan (schools with special programs open to any student who wishes to attend, either on a part-time or full-time basis):
- ______1. None
- ______2. Light
- ______3. Moderate
- ______4. Heavy
- ______5. Total

___ 42. Magnet-mandatory plan (where magnet schools are one component of a mandatory plan):
- ______1. None
- ______2. Light
- ______3. Moderate
- ______4. Heavy
- ______5. Total

___ 43. Rezoning or school closing (the placement of school attendance boundaries to include both majority and minority race children in every possible school within the zone. School closing is also included):

_____1. None
_____2. Light
_____3. Moderate
_____4. Heavy
_____5. Total

___ 44. Education Parks (a centrally located single facility which replaces other schools previously in the area):

_____1. None
_____2. Light
_____3. Moderate
_____4. Heavy
_____5. Total

~~45. Estimate the amount of busing before the plan was implemented (zero being none; 10 indicates very extensive)~~

(Questions 45, 46 & 47 were omitted)

~~white only~~

___ ~~% __________ exact no. __________~~

___ ~~0 1 2 3 4 5 6 7 8 9 10~~

~~minorities only~~

___ ~~% __________ exact no. __________~~

___ ~~0 1 2 3 4 5 6 7 8 9 10~~

~~total~~

___ ~~% __________ exact no. __________~~

___ ~~0 1 2 3 4 5 6 7 8 9 10~~

~~46. Estimate the amount of busing taking place after plan implementation (zero being none; 10 indicates very extensive)~~

~~white only~~

___ ~~% __________ exact no. __________~~

___ ~~0 1 2 3 4 5 6 7 8 9 10~~

~~minorities only~~

___ ~~% __________ exact no. __________~~

___ ~~0 1 2 3 4 5 6 7 8 9 10~~

Cont.

~~46. Cont.~~

~~total~~

~~___ % __________ exact no. __________~~

~~___ 0 1 2 3 4 5 6 7 8 9 10~~

~~47. Estimate the approximate increase in busing as a result of the plan (zero being none; 10 indicates extremely large)~~

~~white only~~

~~___ % __________ exact no. __________~~

~~___ 0 1 2 3 4 5 6 7 8 9 10~~

~~minorities only~~

~~___ % __________ exact no. __________~~

~~___ 0 1 2 3 4 5 6 7 8 9 10~~

~~total~~

~~___ % __________ exact no. __________~~

~~___ 0 1 2 3 4 5 6 7 8 9 10~~

Desegregation Plan Implementation

___48. Estimate the percentage of white students reassigned as a result of the plan (either voluntary or "forced"). (Zero means none; 10 means virtually 100%).

1 2 3 4 5 6 7 8 9 10

___49. Estimate the percentage of black students reassigned as a result of the plan (either voluntary or "forced"). (Zero means none; 10 means virtually 100%).

1 2 3 4 5 6 7 8 9 10

___50. Is the plan district-wide?

_____1. No
_____2. Yes

___51. Rate the degree to which leaders of the white community were favorable to the plan (zero being strongly opposed; 10 being highly favorable):

1 2 3 4 5 6 7 8 9 10

___ 52. Rate the degree to which the general white population was favorable to the plan (zero being strongly opposed; 10 being highly favorable):

0 1 2 3 4 5 6 7 8 9 10

___ 53. Rate the degree of satisfaction with plan implementation by the white community (zero being not at all satisfied; 10 being totally satisfied):

0 1 2 3 4 5 6 7 8 9 10

___ 54. Rate the degree to which the black community was favorable to the plan (zero being strongly opposed; 10 being highly favorable):

0 1 2 3 4 5 6 7 8 9 10

___ 55. Rate the degree of satisfaction with plan implementation by the black community (zero being not at all satisfied; 10 being totally satisfied):

0 1 2 3 4 5 6 7 8 9 10

___ 56. Estimate the extent to which the local school board was divided in its support of the plan:

_____1. Unanimously in favor
_____2. Predominantly in favor
_____3. Closely divided but in favor
_____4. Closely divided but in opposition
_____5. Predominantly opposed
_____6. Unanimously opposed

___ 57. Was some form of officially sanctioned citizen participation required as part of the plan implementation (e.g., committee of 100, special desegregation committee)?

_____1. No
_____2. Yes

___ 58. How did formal citizen participation take place, if any?

_____1. Group appointed voluntarily by superintendent or board
_____2. Group required by court but appointed by superintendent or board
_____3. Group appointed by court
_____4. Group part elected from district and part appointed by superindendent or board (all done voluntarily)
_____5. Group part elected from district and part appointed by superintendent or board under court order

Cont.

58. Cont.

_____6. Court mandated election from district

_____7. Other arrangement ____

_____8. No such group existed

___ 59. Indicate the power of the citizens group regarding plan formulation:

_____1. Advisory only

_____2. Binding by court order

_____3. No such groups existed

___ 60. Indicate the extent of citizen group involvement in plan implementation:

_____1. Advisory only

_____2. Binding by court order

_____3. Was not involved in implementation

_____4. No such groups existed

___ 61. If citizen group was involved in implementation, estimate for what period of time:

_____1. First one or two years only

_____2. Three or more years

_____3. No such groups existed

___ 62. Was an outside professional, expert advisor, or "special master" required by the court?

_____1. No

_____2. Yes

_____3. Unknown

___ 63. Indicate the scope of services of the outside professional:

_____1. Only to develop plan

_____2. Only to oversee plan implementation

_____3. Both develop and oversee implementation

_____4. No such person hired

___ 64. Was a new superintendent hired primarily for purposes of either plan formulation or implementation?

_____1. No

_____2. Yes, for plan formulation and implementation

_____3. Yes, for implementation of plan created by others

___ 65. Rate the degree to which the attitudes and actions of the school superintendent favored the plan (zero being strongly opposed; 10 highly favorable. If nothing reported, assign five.)

0 1 2 3 4 5 6 7 8 9 10

___ 66. Rate the degree of support for the plan on the part of the local media (zero being strongly opposed; 10 being highly favored. If nothing reported, assign five.)

0 1 2 3 4 5 6 7 8 9 10

___ 67. Did organized anti-desegregation groups (usually with a name or initials) develop to oppose the desegregation effort?

___1. No

___2. Yes

___ 68. Rate the effectiveness of organized anti-desegregation groups (zero being totally ineffective in impeding the desegregation effort; 10 being extremely effective in impeding, delaying, or otherwise preventing desegregation):

0 1 2 3 4 5 6 7 8 9 10

___ 69. Rate the degree to which litigation has impeded desegregation since the original court decision (zero indicates no further litigation, or litigation has not impeded desegregation at all; 10 indicates litigation completely halted any move to desegregate):

0 1 2 3 4 5 6 7 8 9 10

___ 70. Rate the degree to which violence accompanied plan implementation (violence is defined as the exertion of physical force with the intent to injure individuals, destroy property, or physically impede the desegregation process). Zero indicates no violence; 10 indicates total or extreme violence :

0 1 2 3 4 5 6 7 8 9 10

___ 71. Rate the degree of community resistance to the plan other than by physical violence, as manifested by such things as demonstrations, boycotts, protests, verbal harassment (zero means no resistance; 10 indicates total or extreme resistance):

0 1 2 3 4 5 6 7 8 9 10

___ 72. Rate the degree to which overall community resistance (organized, unorganized, violent, nonviolent) has impeded desegregation following the original court order or other major impetus to desegregate (zero being no impediment; 10 being completely halted any move to desegragate):

0 1 2 3 4 5 6 7 8 9 10

___ 73. Rate the approximate increase in private school enrollment accompanying the plan (zero being none; 10 being very extensive):

0 1 2 3 4 5 6 7 8 9 10

___ 74. Rate the degree to which the burden of compliance falls on black and/or white students (-10 indicates that the burden falls entirely on black students; +10 indicates that the burden falls completely on white students; 0 indicates that the burden falls equally on black and white students.)

-10 -5 0 +5 +10

___ 75. Rate the degree to which overall racial balance has improved since the plan was put into effect (racial balance defined as the extent to which each school in a district equals or closely approximates the racial composition of the entire school system):

_____1. Little or no substantial change (30% or fewer of schools have achieved racial balance)

_____2. Moderate to fairly substantial change (30% to 60% have achieved racial balance)

_____3. Substantial change or virtually complete racial balance (more than 60% of schools have achieved racial balance)

___ 76. What is the stage or phase of the desegregation plan at the time of the major report?

_____1. Initial stage (first two years)

_____2. Middle stage (third or fourth year)

_____3. Advanced stage (more than four years)

___ 77. What is your opinion as to the total effectiveness of the desegregation plan? In considering overall effectiveness, account for such factors as compliance, litigation, white flight, massive transfers to private schools, violence, racial balance achieved. Zero indicates that the plan was totally ineffective; 10 indicates a totally effective plan.

0 1 2 3 4 5 6 7 8 9 10

78. Your major report writer: ______________________________

79. Date this instrument completed: _______________

80. Coder/analyst: ______________________________

List of sources used in completing this survey (specific citations). Mark the major report used.

81. The major study appears as:
_____1. Civil Rights Commission report
_____2. Book or part thereof
_____3. Unpublished report from district
_____4. Court Case
_____5. Journal article
_____6. Dissertation 7. Other (specify)____________________

82. Date of the major study
_____1. 1968-69
_____2. 1970-71
_____3. 1972-73
_____4. 1974-75
_____5. 1976-77
_____6. 1978-79
_____7. 1980

83. The primary author of the study is:
_____1. CRC advisory committee
_____2. Academic
_____3. School official or staff
_____4. School lay committee
_____5. Court
_____6. Outside research organization or consultant
_____7. Other (specify) ______________________________

84. Your overall evaluation of the quality of the study based on the adequacy of the evidence (completeness and comprehensiveness) presented in the report:
_____1. good
_____2. Moderate
_____3. Poor

APPENDIX B

GLOSSARY OF DESEGREGATION TERMS

Compiled primarily from:

Hughes, Larry W., William M. Gordon, and Larry W. Hillman. 1980. *Desegregating America's Schools*. New York: Longman.

Josey, Leronia, ed. 1974. *Desegregation Resource Handbook*. Philadelphia School District: Office of Community Affairs (November).

Busing--refers to any means by which students are transported between home and school when paid for by public funds. Most of the transportation is indeed provided by district-owned or contract buses. In some larger cities, however, students ride existing public transportation systems. "Increase in busing" is derived in such a way that the actual mode of transportation in each separate district does not affect the actual calculations.

Clustering--the method that combines three or more schools, any one or more of which may have been previously segregated, into desegregated facilities with different grade levels in each.

De facto segregation--a separation of students by race which the law recognizes as having happened either by sheer accident or because of housing patterns, with no local or state action responsible for the separation.

De jure segregation--although frequently equated with "southern" segregation in the 17 southern and border states, de jure segregation in fact refers to any separation of students by race which results from official school board, city, or state action.

Educational parks--large school sites with several buildings, centralized administration, consolidated media, and physical education facilities. Frequently, as many as 10,000 students are served in a grade structure from pre-K to grade 12. Few if any such organizational facilities actually exist.

Magnet-mandatory plan--a form of magnet school that is not optional. The choice is not between a segregated neighborhood school and a desegregated magnet school. Parental choices are: (1) leave the school system, (2) accept the forced reassignment to a desegregated school, or (3) choose a desegregated magnet school.

Magnet-only plan--an essentially voluntary program under which parents may choose to send their children to a citywide or areawide school offering a special curriculum or educational program. Magnet-only plans depend on making such schools sufficiently attractive to induce parents to voluntarily leave their segregated neighborhood schools.

Majority-to-minority transfer--a method of voluntary student assignment by which students who are enrolled in schools in which their race is in the majority may transfer to any school (in the same district) where their race is in the minority. Usually, the school district is obliged to provide transportation. The hope is to produce a voluntary leveling of racial imbalances between schools.

Metropolitan plan--a desegregation plan that crosses established school district lines. In effect, metropolitan plans call for interdistrict remedies to segregation.

Open enrollment--a voluntary student assignment approach that permits parents to choose any school within a district for their children to attend. In the North, it is frequently the first hesitant step taken by a desegregating school district; in the South, it was the predominant form of desegregation under the appellation of "freedom of choice."

Pairing--a method of desegregating two schools, one predominantly white, the other minority, which serve the same grades. Instead of both schools containing K-6, after pairing one school might have grades K-3 and the other grades 4-6, with students drawn from the former attendance zones of both schools. Both schools would share the white and minority populations of the enlarged zone.

Racial balance--a requirement that the racial makeup of each school in a district equal or approximate the racial composition of the entire community.

Resegregation--the return of previously desegregated schools to segregated conditions. Population mobility and the disposition of some parents to send their children to private schools are frequent causes of this.

Rezoning--the redrawing of attendance area boundaries so that the newly constituted attendance areas more closely reflect the racial composition of the entire school community.

School closing--frequently a part of a larger desegregation plan, the closing of a school and the redistribution of its student body into other schools not of the same racial makeup is one way to change the racial identity of schools.

Special master--an expert appointed by the court to act as the representative of the court in the development of a desegregation plan.

Voluntary desegregation--a desegregation plan in which the school district decides to desegregate its schools without direction from the courts.

White flight--a term often used instead of white enrollment decline. Although it generally refers to the tendency for white middle- and upper-class families to relocate out of communities that implement desegregation plans, it may also include those students who have opted for private schools.

Zoning or rezoning--the placement of school attendance boundaries to include both majority and minority race children in every possible school.

APPENDIX C

ADDITIONAL COMMENTS ABOUT INTERCODER RELIABILITY

Each case survey instrument included 87 possible questions to which the analyst-readers could respond. However, for some case studies many of the questions asked were not applicable to the district's desegregation effort. For example, in San Francisco only elementary schools were involved in the desegregation process. Thus, questions on the case survey seeking information about desegregation strategies employed at the junior high and high school levels were coded as non-applicable. In addition, as the project progressed it became apparent that certain types of data were simply not reported in most case studies: busing figures by level before and after desegregation effort; number of students reassigned to schools as a result of desegregation plan; and private school enrollment increases as a result of desegregation.

With respect to busing data it was decided to omit questions 35 through 37 (busing at junior high level) and questions 45 through 47 (busing at high school level) and record for questions 25 through 27 (questions originally designed to capture busing figures only at the elementary level) busing information for the entire district. The exclusion of junior high and high school busing questions reduced the total number of survey questions to 69.

Using these survey modifications, an item-by-item intercoder agreement analysis was performed. Table C-1 shows the number of response categories for each question, observed agreement for each question,[1] and the number of questions that one or both analyst-readers felt were impossible to answer.

As Table C-1 shows, the mean level of interanalyst agreement across the 69 applicable questions is 86 percent. The table also reveals that of the possible 610 questions across the 10 surveys that the analyst-readers could have responded to, for 159 (26%) questions either one or both of the coders felt the question was impossible to answer. (The total number of questions is 10 x 69 or 690 minus 80 questions which were nonapplicable.) Of these 159 questions, approximately 53 percent (68 questions) were questions concerning busing or student reassignment. Excluding these questions the number of impossible to answer questions is 91 or 15 percent.

NOTE

1. For questions which had a response range of 11, agreement was recorded if the two analysts' responses were within one code, in either direction, of each other. For example, if the initial coder had chosen the response of 4, agreement was recorded if the second coder chose either a 3, 4, or 5.

TABLE C1

PERCENT OF AGREEMENT BETWEEN TWO OBSERVERS BY ITEM, 10 CASES

Question	No. of Response Categories[a]	Observed[b] Agreement (%)	Questions[c] Impossible to Answer
10	3	80	0
11	3	100	1
12	2	88	2
13	Date	100	0
14	Date	100	1
15a	2	90	0
15b	Date	70	0
16	3	68	0
17	3	100	1
18	5	67	0
19	5	89	0
20	5	88	0
21	5	88	1
22	5	89	0
23	5	44	0
24	5	100	0
25a	11	100	9
25b	11	100	9
25c	11	100	5
26a	11	100	9
26b	11	100	9
26c	11	100	5
27a	11	100	9
27b	11	100	9
27c	11	100	4
28	5	100	1
29	5	100	1
30	5	100	1

TABLE C1 CONTINUED

Question	No. of Response Categories[a]	Observed[b] Agreement (%)	Questions[c] Impossible to Answer
31	5	100	1
32	5	100	1
33	5	33	1
34	5	100	1
35a-37a questions omitted			
38	5	100	1
39	5	100	1
40	5	100	1
41	5	100	1
42	5	100	1
43	5	40	1
44	5	100	1
45a-47c questions omitted			
48	11	100	8
49	11	100	8
50	2	100	0
51	11	57	3
52	11	71	3
53	11	66	7
54	11	80	5
55	11	66	7
56	6	75	2
57	2	90	0
58	8	89	0
59	3	75	1
60	4	78	0
61	3	83	3
62	3	89	0
63	4	100	1

TABLE C1 CONTINUED

Question	No. of Response Categories[a]	Observed Agreement (%)[b]	Questions Impossible to Answer[c]
64	3	100	0
65	11	70	0
66	11	100	0
67	2	100	2
68	11	83	3
69	11	100	2
70	11	88	2
71	11	75	2
72	11	75	2
73	11	67	7
74	5	67	1
75	3	75	2
76	3	100	0
77	11	70	0
		$\overline{X}$ = .86	159

---

[a] See questionnaire in Appendix A.

[b] Includes items answered "sure" and "not sure."

[c] Either one or both of the analyst-readers responsed to the question as "impossible to answer."

APPENDIX D

YEAR PRIOR TO AND YEAR OF MAJOR DESEGREGATION EFFORT BY GRADE LEVEL

	Systemwide		Elementary		Secondary	
District Name	T-1[a]	T[b]	T-1[a]	T[b]	T-1[a]	T[b]
Birmingham, AL	1969	1970	1969	1970	1969	1970
Mobile County, AL	1970	1971	1970	1971	1970	1971
Pasadena, CA	1969	1970	1969	1970	1969	1970
Richmond, CA	1968	1969	1968	1969	1968	1969
San Francisco, CA	1970	1971	1970	1971	NA[d]	NA[d]
Stockton, CA	1974	1976[c]	NA[d]	NA[d]	1974	1976[c]
Colorado Springs, CO	1969	1970	NA[d]	NA[d]	1969	1970
Denver, CO	1973	1976[c]	1974	1976[c]	1973	1974
Broward County, FL	1969	1971	1970	1971	1969	1970
Dade County, FL	1969	1970	1969	1970	1969	1970
Duval County, FL	1970	1972	1970	1972	1970	1972
Escambia County, FL	1968	1969	1968	1969	1968	1969
Hillsborough County, FL	1970	1971	1970	1971	1970	1971
Leon County, FL	1969	1970	1969	1970	1969	1970
Orange County, FL	1968	1973	1972	1973	1968	1969
Pinellas County, FL	1970	1971	1970	1971	1970	1971
Polk County, FL	1968	1969	1968	1969	1968	1969
Volusia County, FL	1968	1970	1969	1970	1968	1969
Atlanta, GA	1972	1973	1972	1973	1972	1973
DeKalb County, GA	1968	1969	1968	1969	1968	1969
Peoria, IL	-[e]	1968	-[e]	1968	-[e]	1968
Vanderburgh County, IL	1969	1972	1971	1972	1969	1970
Wichita, KS	1968	1971	1970	1971	1968	1969
Jefferson County, KY	1974	1976[c]	1974	1976[c]	1974	1976[c]
Baltimore, MD	1973	1976[c]	1973	1974	1974	1976[c]
Prince George's County, MD	1972	1973	1972	1973	1972	1973
Boston, MA	1973	1976[c]	1974	1976[c]	1973	1974
Flint, MI	1974	1976	1974	1976	1974	1976
Grand Rapids, MI	1969	1970	1969	1970	1969	1970
Lansing, MI	1974	1976	1974	1976	NA[d]	NA[d]

District Name	Systemwide T-1[a]	Systemwide T[b]	Elementary T-1[a]	Elementary T[b]	Secondary T-1[a]	Secondary T-[b]
Pontiac, MI	1970	1971	1970	1971	NA[d]	NA[d]
Minneapolis, MN	1971	1972	1971	1972	1971	1972
Omaha, NE	1974	1976	1974	1976	1974	1976
Clark County, NV	1971	1972	1971	1972	NA[d]	NA[d]
Forsyth County, NC	1970	1971	1970	1971	1970	1971
Greensboro, NC	1970	1971	1970	1971	1970	1971
Mecklenberg County, NC	1969	1970	1969	1970	1969	1970
Oklahoma City, OK	1971	1972	1971	1972	1971	1972
Tulsa, OK	1970	1971	1970	1971	1970	1971
Providence, RI	1969	1971	1969	1970	1969	1971
Greenville County, SC	1969	1970	1969	1970	1969	1970
Memphis, TN	1972	1973	1972	1973	1972	1973
Nashville-Davidson County, TN	1970	1971	1970	1971	1970	1971
Austin, TX	1970	1973	1972	1973	1970	1971
Corpus Christi, TX	1974	1976[c]	MD[f]	MD[f]	1974	1976[c,g]
Dallas, TX	1974	1976	1974	1976	1974	1976
Houston, TX	1974	1976	1974	1976	1974	1976
Newport News, VA	1970	1971	1970	1971	1970	1971
Richmond, VA	1970	1971	1970	1971	1970	1971
Tacoma, WA	-[e]	1968	-[e]	1968	-[e]	1968[g]
Milwaukee, WI	1974	1976	1974	1976	1974	1976
Racine, WI	1973	1976	1974	1976	1973	1974

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[a] T-1 is the year prior to major desegregation effort. In cases of "phased-in" plans, T-1 may be more than one year prior to T.

[b] T is the year of major desegregation effort. In cases of "phased-in" plans, T is the last year of the desegregation effort.

[c] Year of desegregation is actually 1975. Since the Office of Civil Rights did not collect data in 1975, 1976 is used as the implementation year.

[d] District's desegregation actions did not involve this level.

[e] The Office of Civil Rights began its annual survey of school districts in 1968. Data prior to this year are not available.

[f] The elementary school desegregation scores (dissimilarity index scores) for Corpus Christi are missing for years 1972-76.

[g] At the secondary level, only middle schools were involved in the desegregation process (not high schools). The data available to us, however, exists only at two levels--elementary and secondary. Inspection of the codebook supplied to us with the data indicates that in preparing the data, the OCR placed middle schools in the secondary level category.

APPENDIX E

CASE PROFILES AND SELECTED SCHOOL DISTRICT CHARACTERISTICS

This appendix contains desegregation case study profiles for each of the 52 large school districts. Each case profile is composed of seven sections (A-E). Section A identifies the school district, while Section B provides demographic information about the district: school district population (1970); mean number of students and schools (1968-1974, 1976); and mean percent black and minority school enrollment (1968-1974; 1976).

In Section C the year of the principal or major desegregation effort is given. Thus, a statement that, for example, Dallas desegregated in 1976 does not mean that this was the first or only attempt, just that this date marks the most extensive desegregation effort for that community. In addition, information is presented concerning the primary impetus for desegregation (e.g., voluntary, court order, HEW order) and those persons responsible for plan formulation.

Sections D, E, and F document, respectively, information on: principal desegregation strategies employed by the district (e.g., rezoning, magnet schools, clustering); busing and white student enrollment data; and community reaction (e.g., support, opposition, protests) to the desegregation plan, implementation, and/or desegregation per se. Finally, in Section G an attempt is made to measure empirically desegregation success.

In addition to the case profiles the appendix contains Table E-1 which presents selected school district characteristics of the 52 cases profiled for the years 1968, 1970, 1972, 1974, and 1976. The table also presents a 1968-76 change measure of each characteristic. For each year, six items of information are recorded: (1) total number of schools in the district (# schools); (2) total district school enrollment (school enroll.); (3) percent black (% blk.) and (4) minority (% min.) enrollment for all schools in the district; (5) dissimilarity index (DI) score; and (6) exposure of minorities to whites (EMW) index score. While the first four data items are relatively straightforward and the meaning, interpretation, and calculation of the dissimilarity index has been discussed in section one (research design), the exposure of minorities to whites index merits elaboration.

School segregation/desegregation as a concept is multidimensional in nature. That is, racial balance in schools may be represented and measured in different ways. For example, the dissimilarity index measures the racial distribution of students--the number of minority or white students who would have to change schools in order for every school in the district to reflect the racial composition of the district. As a result of school desegregation, interracial contact should be enhanced. The "exposure index" attempts to measure this interracial contact. While the index can be adjusted to reflect just as easily the exposure of white pupils to minorities, the exposure of minorities to white pupils is perhaps more intuitively appealing. The EMW index specifies the average white proportion in schools attended by minority students. Thus, the index represents the potential exposure or contact of the "average minority pupil" with white students. Whether the "potential" contact is reached, of course, depends upon the manner in which students in the school system interact with respect to race. EMW index scores are calculated as follows:

$$EMW = \frac{\sum_{C=1}^{K} M_i(1-P_i)}{M}$$

where, K = number of schools in district,

M_i = minority pupils in ith school,

P_i = ratio of minority pupils to total pupils for ith school

M = total minority enrollment in district.

If a school system is completely segregated, the EMW index value equals zero. Conversely, if the district is racially balanced, then every pupil is in a school where the ratio of minority pupils to total pupils for the ith school equals the ratio of minority pupils to total pupils in the school district. An EMW index score, for example, of 9.1 for Mobile, Alabama, in 1968, can be interpreted as: The average proportion of white students in Mobile schools to which minority pupils were exposed in 1968 was 9.1 percent.

This measure is unstandardized and thus varies according to both the racial balance in each school and the proportion minority in the entire district. It is a useful supplement to the dissimilarity index since it takes account of declines in white enrollment. Thus, it might be possible for a district to reflect a substantial improvement in the level of desegregation as measured by the DI, but show little improvement in the exposure of minorities to whites (EMW). This could occur where the proportion minority in the district is quite high.

CASE PROFILE

A. SCHOOL DISTRICT: Birmingham, Alabama

B. DEMOGRAPHICS: Population 300,877 No. of Students 58,791

No. of Schools 96 % Black 59 % Minority 59

C. DESEGREGATION EFFORTS: Under a plan formulated by the local school board and court appointed consultants, Birmingham first desegregated in 1970. Certain changes in the desegregation plan were also undertaken in 1976 following a district court order.

D. PRINCIPAL DESEGREGATION STRATEGIES: Under mandate of the court, elementary and secondary schools were desegregated by rezoning. The district also closed eight black elementary schools and one black high school. The plan also included majority to minority transfers. In 1976, a number of elementary schools were clustered, and four magnet schools were created.

E. BUSING AND WHITE ENROLLMENT CHANGE: Birmingham does not own or operate school buses. Students who need transportation ride the rapid transit system. About an 18 percent decline in white enrollment occurred between 1969 and 1971 (from 31,352 to 26,032).

F. COMMUNITY REACTION: The local school board was predominantly in favor of the plan. Case evidence suggests that the white community was not supportive of the plan to begin with but became more favorable after implementation. This change in attitude may have resulted from the small number of white students that were reassigned. In contrast, black attitudes toward the plan became more negative after implementation. Perhaps they felt that the burden of desegregation was being placed primarily on their children.

G. DESEGREGATION OUTCOMES: In 1969, Birmingham, relatively speaking, operated two school systems--one for blacks and one for whites (Desegregation Index score of 90.1). In 1971, one year after major desegregation efforts, the district had made marginal improvements (DI score of 74.9), but by 1976 the DI score for Birmingham increased to 80.0.

CASE PROFILE

A. **SCHOOL DISTRICT:** Mobile County, Alabama

B. **DEMOGRAPHICS:** Population 317,308 No. of Students 68,324

No. of Schools 85 % Black 45 % Minority 45

C. **DESEGREGATION EFFORTS:** After considerable controversy surrounding a 1963 court order to desegregate and a 1967 court confirmation of the original suit, Mobile attempted significant desegregation in 1971. With a plan created by the school board the district was guaranteed three years free from litigation in which to desegregate. In 1974, it was decided that the district was not in compliance and once again the case was reopened.

D. **PRINCIPAL DESEGREGATION STRATEGIES:** Rezoning, majority to minority transfers, and the closing of a few elementary and secondary schools.

E. **BUSING AND WHITE ENROLLMENT CHANGE:** No information on busing is available. Between 1968 and 1976, white student enrollment in the district declined from 44,023 to 36,326 (17%). Pre-desegregation (1970) and post-desegregation (1972) white student enrollment fell by 2,734 students.

F. **COMMUNITY REACTION:** Between the years 1963 to 1971 community response to desegregation was negative: The state vehemently opposed it; the local community fought against it; and parents prompted their children to rebel against it. When desegregation efforts finally occurred in 1971 there was little, if any, violent response to the plan; the community just seemed to run out of steam.

G. **DESEGREGATION OUTCOMES:** In 1968, Mobile had a DI score of 88.8. By 1976, the score had declined by 30.9 percent to 57.9. Pre- (1970) and post- (1972) desegregation effort DI scores are, respectively, 69.6 and 52.5.

A. **SCHOOL DISTRICT:** Pasadena, CA

B. **DEMOGRAPHICS:** Population 178,411 No. of Students 27,727

No. of Schools 39 % Black 36 % Minority 50

C. **DESEGREGATION EFFORTS:** Pasadena Unified desegregated local schools in 1970 following a decision by a federal district court on a case initiated in 1968. The local school board formulated the plan.

D. **PRINCIPAL DESEGREGATION STRATEGIES:** The school board's plan used pairing, clustering, and rezoning for elementary schools. Rezoning and the construction of new schools was used for secondary schools. Voluntary enrollment was not employed. The plan also created a ninth grade center for all students in the district.

E. **BUSING AND WHITE ENROLLMENT CHANGE:** In 1969, approximately 3,882 students rode buses to their respective schools. After implementation of the plan in 1970, school children riding buses increased to about 12,882. White school enrollment in local systems decreased by 3,987 (22%) between 1969 and 1971.

F. **COMMUNITY REACTION:** No violence or anti-desegregation behavior was manifested during plan implementation. This may be attributed to the fact that white community leaders seemed to favor desegregation. While there was some opposition on the school board, in general, members were in favor of desegregation.

G. **DESEGREGATION OUTCOMES:** Pasadena was quite successful in reducing racial isolation. From a DI score of 50.3 in 1969, the district was able to enhance racial balance to a 1971 figure of 10.1.

CASE PROFILE

A. **SCHOOL DISTRICT:** Richmond, CA

B. **DEMOGRAPHICS:** Population 181,314 No. of Students 39,756

No. of Schools 62 % Black 30 % Minority 39

C. **DESEGREGATION EFFORTS:** Richmond Unified school district voluntarily desegregated in 1969. The plan was created by the local school board following public hearings on the issue.

D. **PRINCIPAL DESEGREGATION STRATEGIES:** Voluntary transfers, clustering, and rezoning.

E. **BUSING AND WHITE ENROLLMENT CHANGE:** Prior to 1969 Richmond did not bus any children to or from school. With desegregation in 1969, 1,100 children rode buses to school for the first time. Between 1968 and 1970, white school enrollment declined by 2,676 students (9% decrease).

F. **COMMUNITY REACTION:** In the late 1960s, a liberal school board tried to instigate massive school desegregation. The community resisted and the board was voted out of office. A more conservative board emerged and set up a freedom of choice plan coupled with clustering of schools.

G. **DESEGREGATION OUTCOMES:** In 1968, one year prior to desegregation, and 1970, one year after desegregation, Richmond had DI scores of 50.4 and 44.9.

CASE PROFILE

A. **SCHOOL DISTRICT:** San Francisco, California

B. **DEMOGRAPHICS:** Population 715,627 No. of Students 82,931

No. of Schools 159 % Black 29 % Minority 67

C. **DESEGREGATION EFFORTS:** San Francisco desegregated its elementary schools in 1971 following a federal court decision. The local school board formulated the desegregation plan.

D. **PRINCIPAL DESEGREGATION STRATEGIES:** Massive rezoning of elementary schools.

E. **BUSING AND WHITE ENROLLMENT CHANGE:** Before desegregation only about one-half of one percent (.05%) of the 91,150 students were bused. Following desegregation in 1971, the district bused about 19,200 of the 86,560 students, or about 22 percent. San Francisco experienced a significant loss in school enrollment between 1968 and 1976--27,450 students. Total white school enrollment declined by 20,109 (52%) students during the eight-year span. With respect to elementary schools only, between 1970 and 1972 white school enrollment declined from 17,936 to 12,248 (32%).

F. **COMMUNITY REACTION:** Apparently, there was little support for the desegregation plan; neither the white, the black, nor the Chinese-American communities were overly enthusiastic. For desegregation pruposes the Chinese-American students were treated as a minority group. Upon learning that the plan called for this minority to be bused out of their own schools, the Chinese-Americans became intervenors in the case and staged boycotts. In general, however, no apparent outbreaks of violence were associated with desegregation implementation.

G. **DESEGREGATION OUTCOMES:** San Francisco has been fairly successful in reducing racial isolation. In 1970, the district had a DI score of 41.1; by 1972 the score had fallen to 22.6. At the elementary level, similar values can be reported. In 1970, the DI score for elementary schools only was 44.8; in 1972, the score was 15.6.

CASE PROFILE

A. **SCHOOL DISTRICT:** Stockton, California

B. **DEMOGRAPHICS:** Population 141,874 No. of Students 30,853

No. of Schools 44 % Black 15 % Minority 43

C. **DESEGREGATION EFFORTS:** Stockton desegregated local schools over a three-year time period. High schools were desegregated in 1975 followed by junior highs in 1976 and elementary schools in 1977. The desegregation effort was prompted by a 1974 court case. The plan was formulated by the local school board following public hearings.

D. **PRINCIPAL DESEGREGATION STRATEGIES:** Rezoning was employed as the primary desegregation strategy. In addition, one middle school was closed since it failed to meet the specifications set forth in the Field Act which set standards for earthquake survivable buildings.

E. **BUSING AND WHITE ENROLLMENT CHANGE:** In 1974, about 4,062 (14%) students rode buses. In 1976, ridership was about 18% or 4,736 students. Between 1974 and 1976 white student enrollment declined by 3,952 students (24.4 %).

F. **COMMUNITY REACTION:** For the most part, the white community seemed favorable toward the plan. Similarly, the school superintendent and the board were supportive. No anti-desegregation behavior or acts (e.g., protests, demonstrations, etc.) occurred.

G. **DESEGREGATION OUTCOMES:** The DI score for Stockton in 1974 was 46.3. Two years later the score was 37.7.

CASE PROFILE

A. **SCHOOL DISTRICT:** Colorado Springs, Colorado

B. **DEMOGRAPHICS:** Population 148,872 No. of Students 33,659

No. of Schools 48 % Black 6 % Minority 17

C. **DESEGREGATION EFFORTS:** Colorado Springs voluntarily desegregated secondary schools in 1970 using the school board's plan. The decision was made in 1969 when it became apparent to local school officials that a new high school was needed to meet a growing student population.

D. **PRINCIPAL DESEGREGATION STRATEGIES:** Rezoning.

E. **BUSING AND WHITE ENROLLMENT CHANGE:** In 1969, the district transported about 9.8 percent of all students. Following the rezoning in 1970, busing decreased to 6.7 percent of all students. White school enrollment increased by about 2,000 students between 1969 and 1971.

F. **COMMUNITY REACTION:** Secondary schools were desegregated with little opposition from community members. Open meetings were held to discuss rezoning. The only opposition to desegregation came from both white and black parents who objected to the disruption busing caused--not to busing itself.

G. **DESEGREGATION OUTCOMES:** In 1969, the district had a DI score of 50.2. Post-implementation the score was 38.9. By 1976, the score had fallen to 27.6. Desegregation of schools may have been facilitated by Colorado Springs being a military town in which, apparently, minority residents have easier access to integrated busing.

CASE PROFILE

A. **SCHOOL DISTRICT:** Denver, Colorado

B. **DEMOGRAPHICS:** Population 514,661 No. of Students 89,959

No. of Schools 120 % Black 17 % Minority 41

C. **DESEGREGATION EFFORTS:** As directed by a federal district court, Denver began desegregating secondary schools in 1974 and elementary schools in 1975.

D. **PRINCIPAL DESEGREGATION STRATEGIES:** The major technique across all grade levels was rezoning. Part-time pairing was used for elementary schools but was discontinued after about two years. For secondary schools there was a minimum use of magnet schools.

E. **BUSING AND WHITE ENROLLMENT CHANGE:** In 1973-74, the district transported about 15,796 students. Following desegregation (1975-76) about 30,907 students--of which 4,140 were bused twice due to part-time pairing of elementary schools--rode buses. Overall busing increased by 96 percent or 15,111 students. White school enrollment declined from 49,892 in 1973 to 43,311 in 1975 to 35,950 in 1976. In total, between 1973 and 1976 white school enrollment declined 28 percent.

F. **COMMUNITY REACTION:** No violence was reported in Denver as a result of desegregation; however, there were a few demonstrations against the plan. The school board as well as the superintendent were largely opposed to the particular desegregation effort.

G. **DESEGREGATION OUTCOMES:** One year prior to school desegregation in Denver the district had a DI score of 46.0. The DI score for implementation year (1974) was 32.9. By 1976, the score had been further reduced to 18.3.

CASE PROFILE

A. **SCHOOL DISTRICT:** Broward County, Florida (Ft. Lauderdale)

B. **DEMOGRAPHICS:** Population 620,049 No. of Students 124,227

No. of Schools 136 % Black 23 % Minority 25

C. **DESEGREGATION EFFORTS:** Broward County, Florida, is a county-wide school district that desegregated local schools in 1970 (secondary level) and 1971 (elementary level). The plan was created by the local school board.

D. **PRINCIPAL DESEGREGATION STRATEGIES:** Elementary schools--pairing and clustering. Secondary schools--rezoning with some open enrollment.

E. **BUSING AND WHITE ENROLLMENT CHANGE:** In 1969, from a total enrollment of about 110,164, approximately 25 percent of the district's school children rode buses. In 1970, school enrollment increased to 123,107 students and the percentage riding buses increased to 34 percent. White student enrollment increased between 1969 and 1971 by 7,356 students (9%).

F. **COMMUNITY REACTION:** No information available.

G. **DESEGREGATION OUTCOMES:** Attempts to improve the racial balance of schools have been successful. The pre-desegregation (1969) DI score for this county-wide district was 79.4. In 1971, this figure had been reduced to 32.7 for a 58.8 percent change.

CASE PROFILE

A. **SCHOOL DISTRICT:** Dade County, Florida (Miami)

B. **DEMOGRAPHICS:** Population 1,267,789 No. of Students 241,790

No. of Schools 236 % Black 26 % Minority 50

C. **DESEGREGATION EFFORTS:** Dade County's major desegregation effort occurred in 1970 by mandate of a federal court order. The plan implemented in 1970 was formulated by the local school board. The court also appointed a local citizens' group to help in desegregation efforts.

D. **PRINCIPAL DESEGREGATION STRATEGIES:** Elementary schools--pairing. Secondary schools--rezoning. Open enrollment was also employed.

E. **BUSING AND WHITE ENROLLMENT CHANGE:** Approximately 30,376 children rode school buses in this county-wide district before plan implementation. Following implementation about 35,856 rode buses to school for an increase of about 21 percent. The white enrollment change between 1969 and 1971 was 11,512. This translates into a white student loss of 8.3 percent.

F. **COMMUNITY REACTION:** No information available.

G. **DESEGREGATION OUTCOMES:** Racial isolation was reduced by 9.4 percent between 1969 and 1971. (In 1969, the DI score for Dade County was 64.5. Two years later the score was 55.1.)

A. SCHOOL DISTRICT: Duval County, Florida (Jacksonville)

B. DEMOGRAPHICS: Population 528,841 No. of Students 116,813

No. of Schools 138 % Black 31 % Minority 31

C. DESEGREGATION EFFORTS: In response to a federal court order, Duval County began to desegregate its school system in 1971 and completed the effort in 1972. The desegregation plan implemented was formulated by the local school board.

D. PRINCIPAL DESEGREGATION STRATEGIES: On the elementary level, Duval County predominantly relied on pairing and clustering of schools coupled with voluntary open enrollment. They also rezoned. Senior high schools were desegregated by use of open enrollment, pairing, rezoning, and creation of a minimal magnet mandatory school.

E. BUSING AND WHITE ENROLLMENT CHANGE: Pre-desegregation district busing affected approximately 26.8 percent of all students. Following implementation, about 44.6 percent of the students rode buses. White school enrollment declined by 9,896 students between 1970 and 1972.

F. COMMUNITY REACTION: No information available.

G. DESEGREGATION OUTCOMES: Duval's pre-desegregation (1970) DI score was 73.4. One year after desegregation the score had declined to 32.7.

CASE PROFILE

A. SCHOOL DISTRICT: Escambia County, Florida (Pensacola)

B. DEMOGRAPHICS: Population 205,334 No. of Students 47,226

No. of Schools 70 % Black 28 % Minority 29

C. DESEGREGATION EFFORTS: Escambia County desegregated in 1969 following a court decision initiated in 1966. The plan used was developed by the local school board.

D. PRINCIPAL DESEGREGATION STRATEGIES: The plan called for majority to minority transfers on all grade levels. Pairing of elementary schools and the closing of three black elementary schools also occurred. At the secondary level, the plan included moderate rezoning.

E. BUSING AND WHITE ENROLLMENT CHANGE: In 1968, the county-wide district transported about 21,022 or 45 percent of its students. In 1969, the district transported about 53 percent for an increase in busing of about 18 percent. White school enrollment pre- and post-implementation remained stable. Only about 600 less white students were enrolled in 1970 than were enrolled in 1968.

F. COMMUNITY REACTION: Little opposition to the plan arose from civic leaders, public officials, or the media.

G. DESEGREGATION OUTCOMES: The desegregation index score for Escambia County was reduced from its 1968 value of 78.3 to its post-implementation 1970 value of 51.1. Thus, in 1970, over 50 percent of all black children still attended majority black schools (50% or more blacks). Inner-city schools were still majority black, while outlying schools were majority white.

CASE PROFILE

A. **SCHOOL DISTRICT:** Hillsborough County, Florida (Tampa)

B. **DEMOGRAPHICS:** Population 490,265 No. of Students 107,822

No. of Schools 130 % Black 19 % Minority 26

C. **DESEGREGATION EFFORTS:** Hillsborough County school district desegregated in 1971 following a federal court order. The plan was formulated by the school board.

D. **PRINCIPAL DESEGREGATION STRATEGIES:** Elementary and junior high schools were rezoned and paired. Black schools became sixth grade centers, and white schools contained grades 1-5. On the senior level, the district rezoned.

E. **BUSING AND WHITE ENROLLMENT CHANGE:** Prior to desegregation the county-wide district transported about 32 percent of its students. In 1971, the first year of desegregation, about 52 percent of the children rode buses (approximately a 65 percent increase). White school enrollment increased by 2,342 students between 1970 and 1972.

F. **COMMUNITY REACTION:** The white community was predominantly in favor of the desegregation plan. The school superintendent as well as the local media were also highly in favor of the plan. The black community became somewhat disenchanted with the plan due to the burden of the desegregation plan on their children.

G. **DESEGREGATION OUTCOMES:** As measured by the desegregation index, efforts in Hillsborough school district were quite successful. In 1970, the DI score was 61.3. In 1972, one year after implementation, the DI score was 17.9.

CASE PROFILE

A. SCHOOL DISTRICT: Leon County, Florida (Tallahassee)

B. DEMOGRAPHICS: Population 103,047 No. of Students 21,784

No. of Schools 30 % Black 34 % Minority 35

C. DESEGREGATION EFFORTS: Leon County desegregated in 1970 following a federal court directive issued the same year. The plan was created by the local school board.

D. PRINCIPAL DESEGREGATION STRATEGIES: Rezoning.

E. BUSING AND WHITE ENROLLMENT CHANGE: Pre-desegregation about 45.8 percent of 9,379 students county-wide rode buses to school. In 1970, following plan implementation about 41.8 percent or about 8,794 students rode buses for a decrease of approximately 585 students. White school enrollment increased by 570 students.

F. COMMUNITY REACTION: No information available.

G. DESEGREGATION OUTCOMES: Leon County's DI scores for pre- (1969) and post-desegregation (1971) are 48.7 and 22.7, respectively.

CASE PROFILE

A. **SCHOOL DISTRICT:** Orange County, Florida (Orlando)

B. **DEMOGRAPHICS:** Population 344,311 No. of Students 83,940

No. of Schools 100 % Black 19 % Minority 20

C. **DESEGREGATION EFFORTS:** Orange County desegregated its secondary schools in 1969 and its elementary schools in 1973 following a court decision initiated in 1969 by the NAACP. The plan was formulated by the local school board.

D. **PRINCIPAL DESEGREGATION STRATEGIES:** Rezoning of both elementary and secondary schools.

E. **BUSING AND WHITE ENROLLMENT CHANGE:** Prior to the court order, about 32,964 students were transported or about 38.7 percent of total enrollment. After the court order about 35,713 of 41.2 percent were bused. Enrollment had increased by about 1,435 students. Approximately 2,100 less white students were enrolled in 1974 than were enrolled in 1969 (3% decrease).

F. **COMMUNITY REACTION:** In general, the school board was opposed to the plan. There is no evidence of violence, but some protests did take place in reactio to the plan.

G. **DESEGREGATION OUTCOMES:** Between 1969, first year prior to major desegregation efforts, and 1974 first year after major desegregation efforts, the racial balance of Orange County school district was improved 25 percentage points (DI score in 1969 was 74.9; in 1974, it was 49.9). There are still 65 out of 99 schools that remain 80 percent or more white, while four schools remain predominantly black.

CASE PROFILE

A. **SCHOOL DISTRICT:** Pinellas County, Florida (Clearwater)

B. **DEMOGRAPHICS:** Population 522,329 No. of Students 86,984

No. of Schools 113 % Black 16 % Minority 17

C. **DESEGREGATION EFFORTS:** Pinellas County desegregated local schools in 1971 following a federal district court order stemming from a 1969 desegregation suit. The plan was created by the local school board. In addition, there was an advisory group composed of 12 members to oversee both plan formulation and implementation.

D. **PRINCIPAL DESEGREGATION STRATEGIES:** In order to desegregate the schools in this county-wide district, the local school board rezoned every school. Each school, by court order, shall not exceed a 30 percent black student enrollment.

E. **BUSING AND WHITE ENROLLMENT CHANGE:** In 1970, Pinellas County bused approximately 35,000 students to school. After desegregation efforts in 1971 the number rose to about 46,000. Increased busing due to desegregation efforts is estimated to be about 9,000 students. White student enrollment increased 6 percent from 70,925 to 75,294.

F. **COMMUNITY REACTION:** No information available.

G. **DESEGREGATION OUTCOMES:** Attempts to integrate local schools in Pinellas County were successful. One year prior to desegregation (1970), the district had a DI score of 64.9. One year after implementation (1972), the score was 24.3.

CASE PROFILE

A. **SCHOOL DISTRICT:** Polk County, Florida (Bartow)

B. **DEMOGRAPHICS:** Population 227,230 No. of Students 56,493

No. of Schools 90 % Black 22 % Minority 23

C. **DESEGREGATION EFFORTS:** School desegregation came to Polk County in 1969 following a federal court order. The local school board created the plan after open meetings with local citizens.

D. **PRINCIPAL DESEGREGATION STRATEGIES:** Rezoning was the major technique used, with some freedom of choice within the assigned school zone. Elementary schools were also paired, and some new secondary schools were built.

E. **BUSING AND WHITE ENROLLMENT CHANGE:** Before desegregation about 16,966 students rode buses to and from their assigned schools. After desegregation about 18,637 students were transported for an increase of approximately 10 percent. White school enrollment between 1968 and 1970 increased from 40,371 to 42,145 or about 4 percent.

F. **COMMUNITY REACTION:** No information available.

G. **DESEGREGATION OUTCOMES:** As measured by the DI scores, Polk County reduced racial isolation between 1968 and 1970 by 28.8 percentage points (from 73.9 to 45.1).

CASE PROFILE

A. **SCHOOL DISTRICT:** Volusia County, Florida (Deland)

B. **DEMOGRAPHICS:** Population 169,463 No. of Students 34,037

No. of Schools 55 % Black 22 % Minority 22

C. **DESEGREGATION EFFORTS:** Volusia County desegregated local schools between 1969 and 1970 under federal court order.

D. **PRINCIPAL DESEGREGATION STRATEGIES:** Pairing/clustering/rezoning.

E. **BUSING AND WHITE ENROLLMENT CHANGE:** Prior to desegregation about 12,026 students rode buses to school (9,919 white and 2,107 blacks). Following plan implementation 12,950 white students and 3,600 black students were provided transportation. This represents an increase of about 31 percent white and 42 percent black transported students for an overall increase of 38 percent. White school enrollment increased by 1,420 students.

F. **COMMUNITY REACTION:** No information available.

G. **DESEGREGATION OUTCOMES:** In 1968, Volusia County had a DI score of 74.1. By 1972, one year after implementation, the score declined to 25.0.

CASE PROFILE

A. **SCHOOL DISTRICT:** Atlanta, Georgia

B. **DEMOGRAPHICS:** Population 450,130 No. of Students 97,316

No. of Schools 149 % Black 75 % Minority 75

C. **DESEGREGATION EFFORTS:** In litigation since an original court order to desegregate in 1958, Atlanta desegregated its school system in 1973. The plan was created as a compromise between the NAACP and Atlanta's Board of Education.

D. **PRINCIPAL DESEGREGATION STRATEGIES:** Majority/minority transfers, construction of new schools, pairing, and rezoning.

E. **BUSING AND WHITE ENROLLMENT CHANGE:** Because the Atlanta school system is so predominantly black, the burden of complying with the plan was slightly more heavily borne by the white students. White students who rode buses to school increased about 16 percent, while black student passengers increased by about 10 percent. Overall, busing increased by about 11 percent. One year prior to implementation of the plan (1972), white school enrollment was 21,683. One year after implementation (1974), white school enrollment was 12,884 (41% decrease).

F. **COMMUNITY REACTION:** Neither the black nor white communities of Atlanta were overwhelmingly in support of the plan. Most felt it was either too much or too little so opposing views cancelled each other out. The school board was closely divided on the plan. A court appointed citizens' group was involved in both formulation and implementation of the plan.

G. **DESEGREGATION OUTCOMES:** Atlanta's efforts to end school racial isolation have not been very successful. In 1972, the district had a DI score of 80.2. One year after major desegregation efforts the DI score was still a relatively high value of 75.0. By 1976, the DI score maintained a similar high level of segregation--73.2.

CASE PROFILE

A. **SCHOOL DISTRICT:** DeKalb County, Georgia (Decatur)

B. **DEMOGRAPHICS:** Population 393,426 No. of Students 85,146

No. of Schools 112 % Black 10 % Minority 11

C. **DESEGREGATION EFFORTS:** Following a federal court decision in Pitts v. Cherry (1969), DeKalb County began desegregating its school system in 1969.

D. **PRINCIPAL DESEGREGATION STRATEGIES:** New schools were built and attendance zones were redrawn in an attempt to achieve racial balance within the district.

E. **BUSING AND WHITE ENROLLMENT CHANGE:** Forty-three percent or about 35,659, out of a total of 82,096, students rode school buses in 1969. Following desegregation efforts about 44 percent of the 85,588 total students were bused. White school enrollment increased by about 8 percent between 1969 and 1971.

F. **COMMUNITY REACTION:** No information available.

G. **DESEGREGATION OUTCOMES:** As measured by the index of desegregation, DeKalb County has made little progress in reducing racial isolation. With a 1968 DI score of 74.7, desegregation efforts resulted in a 1971 DI score of 61.8. Moreover, by 1976 the DI score for the district was virtually the same as for 1968--73.1.

A. **SCHOOL DISTRICT:** Peoria, Illinois

B. **DEMOGRAPHICS:** Population 134,334 No. of Students 25,253

No. of Schools 44 % Black 22 % Minority 22

C. **DESEGREGATION EFFORTS:** Peoria school district voluntarily desegregated in 1968.

D. **PRINCIPAL DESEGREGATION STRATEGIES:** Peoria rezoned its school districts and built new schools in "neutral" areas.

E. **BUSING AND WHITE ENROLLMENT CHANGE:** Between 1968, year of implementation, and 1969, white school enrollment declined by only 217 students (1%). In 1967-68, Peoria transported about 7,171 public school children. In 1970-71, about 7,764 students rode on school transportation to public schools. Number of students increased by 593 or 8 percent.

F. **COMMUNITY REACTION:** When Peoria desegregated the school board, the superintendent, and the community in general facilitated the process. The plan encountered no community resistance, and no instances of violence were reported.

G. **DESEGREGATION OUTCOMES:** In 1968, Peoria had a DI score of 60.6. One year later the score was 52.8 and by 1976 the score had declined to 44.5. Peoria reduced the number of segregated schools from 25 of 39 to 10 of 39 from 1966 to 1971. In 1977, however, a court case was filed in an attempt to further reduce racial isolation.

CASE PROFILE

A. **SCHOOL DISTRICT:** Vanderburgh County, Indiana (Evansville)

B. **DEMOGRAPHICS:** Population 168,772 No. of Students 32,003

No. of Schools 39 % Black 9 % Minority 10

C. **DESEGREGATION EFFORTS:** Evansville-Vanderburgh school district desegregated elementary schools in 1972 following a federal court order. Senior high school had already desegregated in 1970. The plan implemented was created by the school board.

D. **PRINCIPAL DESEGREGATION STRATEGIES:** Massive rezoning.

E. **BUSING AND WHITE ENROLLMENT CHANGE:** Before desegregation only about 8 percent of all students rode buses. After rezoning, approximately 70 percent were bused. For both desegregation efforts (elementary and secondary) white school enrollment between the years 1969-1973 declined 3,166 (10%).

F. **COMMUNITY REACTION:** No information available.

G. **DESEGREGATION OUTCOMES:** At the secondary level, considerable desegregation took place between 1969 (pre-) and 1971 (post-desegregation). The DI scores, respectively, are 61.3 and 11.3. Similarly, at the elementary level pre- (1971) and post-desegregation (1973) DI scores are 71.5 and 26.6. In summary, from 1969 to 1973 the DI score system-wide was reduced from 69.4 to 23.8.

A. **SCHOOL DISTRICT:** Wichita, Kansas

B. **DEMOGRAPHICS:** Population 284,468 No. of Students 59,348

No. of Schools 111 % Black 16 % Minority 19

C. **DESEGREGATION EFFORTS:** Wichita desegregated its elementary schools in 1971 following the threat of loss of federal funds from HEW. The district had previously desegregated its secondary schools in 1969. The desegregation plan was formulated primarily by the local school board.

D. **PRINCIPAL DESEGREGATION STRATEGIES:** Similar to the techniques used in 1969 to integrate secondary schools, voluntary open enrollment and rezoning were employed to desegregate elementary schools.

E. **BUSING AND WHITE ENROLLMENT CHANGE:** Prior to 1971, Wichita transported approximately 16 percent of its students to school. Following desegregation implementation, about 22.8 percent of the students rode buses for an increase of 43 percent. System-wide, between 1968 (pre-secondary desegregation) and 1972 (post-elementary desegregation) white school enrollment fell from 58,060 to 45,942 students (21% decrease).

F. **COMMUNITY REACTION:** The district-wide plan received moderate support from leaders of the white community, but little support from members of the white and minority communities at large. Sporatic incidents of non-compliance (violence) are documented.

G. **DESEGREGATION OUTCOMES:** Apparently, Wichita's desegregation efforts have been quite successful. Prior to the desegregation of secondary schools (1968), the district had a DI score of 65.3. By 1972 (post-elementary school desegregation), the index value had fallen to 16.9.

A. **SCHOOL DISTRICT:** Jefferson County, Kentucky (Louisville)

B. **DEMOGRAPHICS:** Population 415,990 No. of Students 139,715

No. of Schools 164 % Black 21 % Minority 21

C. **DESEGREGATION EFFORTS:** Jefferson County and Louisville school districts were merged, after much litigation, in April, 1975. In the fall of 1975 the schools began a three-phase desegregation process. The implemented plan was a compromise between the court, the plaintiffs, and the defendants.

D. **PRINCIPAL DESEGREGATION STRATEGIES:** Rezoning, and a few schools were paired.

E. **BUSING AND WHITE ENROLLMENT CHANGE:** Busing is district-wide because of the size of the merged districts. Prior to the consolidation, about 67,000 students rode to school on buses. After the merger 73,284 students were transported. Evidence suggests that 19,000 of these students ride buses for desegregation purposes. White student enrollment declined between 1974 and 1976 by 16 percent (from 105,538 to 88,782).

F. **COMMUNITY REACTION:** The district-wide plan received little support from either the community leaders or parents in general. The school board, superintendent, and the media were overwhelmingly opposed to the desegregation plan. Case literature suggests that the two issues at hand--district consolidation and desegregation--were perceived at times as separate issues and not seen as a means (merger) to reach an end (desegregation). The literature also reports acts of violence and demonstrations.

G. **DESEGREGATION OUTCOMES:** Withstanding the heated controversy surrounding district consolidation as a means to enhance desegregation success, Louisville-Jefferson school district reduced racial isolation from 78.2 in 1974 to 21.5 in 1976 (DI scores).

A. **SCHOOL DISTRICT:** Baltimore, Maryland

B. **DEMOGRAPHICS:** Population 905,698 No. of Students 183,089

No. of Schools 210 % Black 69 % Minority 70

C. **DESEGREGATION EFFORTS:** The city of Baltimore desegregated its school system in 1974 and 1975. The elementary and junior high schools were desegregated first. The impetus for desegregation came in 1973 when the federal court ordered HEW to investigate 83 cities (one of which was Baltimore) for noncompliance with the Civil Rights Act. The school board created the plan used.

D. **PRINCIPAL DESEGREGATION STRATEGIES:** Elementary schools--pairing and clustering; secondary schools--rezoning.

E. **BUSING AND WHITE ENROLLMENT CHANGE:** Any student who needs transportation to school rides the public transit system. White school enrollment between 1973 and 1976 declined 36 percent (from 54,549 to 35,081).

F. **COMMUNITY REACTION:** No information available.

G. **DESEGREGATION OUTCOMES:** In order to completely desegregate its school system, 67 percent of white students or minority students (or some combination of the two) would have to change schools. In sum, the DI score for the school district in 1973 was 81.7; in 1976 the score was 67.0.

CASE PROFILE

A. **SCHOOL DISTRICT:** Prince George's County, Maryland (Upper Marlboro)

B. **DEMOGRAPHICS:** Population 660,567 No. of Students 154,609

No. of Schools 228 % Black 25 % Minority 26

C. **DESEGREGATION EFFORTS:** Prince George's County desegregated in 1973 following a 1972 court order. The school board formulated the plan which was implemented in January, 1973, for elementary and junior high schools and in September, 1973, for senior high schools.

D. **PRINCIPAL DESEGREGATION STRATEGIES:** Mandatory reassignment in totally rezoned schools.

E. **BUSING AND WHITE ENROLLMENT CHANGE:** In 1972, about 78,000 students county-wide rode school buses. In the fall of 1973, about 90,761 rode buses (an increase of about 16 percent). In sum, busing increased from about 48.4 percent to 56.1 percent of the total school enrollment. White student enrollment system-wide declined by 17,276 (14.5%) between 1972 and 1974.

F. **COMMUNITY REACTION:** Although the school board formulated the plan, they did so under pressure from the court and were predominantly opposed to desegregation. In addition, neither the black nor the white community were pleased with the plan. Scattered incidents of violence as well as general community resistance occurred during implementation.

G. **DESEGREGATION OUTCOMES:** In 1972, the district had a DI score of 60.8. By 1974, the index value had fallen to 27.3.

A. SCHOOL DISTRICT: Boston, Massachusetts

B. DEMOGRAPHICS: Population 641,042 No. of Students 91,483

No. of Schools 193 % Black 33 % Minority 41

C. DESEGREGATION EFFORTS: Boston schools were desegregated in 1974 following a federal court order. Phase I of the plan went into effect in the fall of 1974. Phase II was completed in 1975. The plan was created by court appointed consultants.

D. PRINCIPAL DESEGREGATION STRATEGIES: Boston's school desegregation plan was formulated by a "special master" appointed by the court. The plan included rezoning of the district into eight autonomous school districts and one city-wide district. The city-wide district had about 22 magnet or special interest schools. A unique aspect of the "Master Plan" was the linking of high schools to various universities, colleges, and businesses in the area. This unique system was designed with the hope of keeping students in the system.

E. BUSING AND WHITE ENROLLMENT CHANGE: Busing was the main target of opposition. Before desegregation was ordered, about 33 percent of the school children rode buses. After desegregation, about one-half of the student population were bused (52% increase). System-wide, between 1968 and 1976, white school enrollment in Boston had decreased by 32,023 students (50%). The largest single year decline occurred between 1972-73, when white student enrollment dropped by over 21,000.

F. COMMUNITY REACTION: In general, the white political leaders of Boston were ineffective in implementing desegregation policy. Mayor White's appeasement and bargaining approach gave way to the strong antibusing leadership of ROAR (Restore Our Alienated Rights). The school board was unanimously opposed to the desegregation plan and tried to impede desegregation efforts. They formulated no plans, leaving the task to the federal court-appointed special master. Violence accompanied desegregation in Boston, as well. Primarily, this violence centered around two schools--South Boston and Hyde Park high schools. Violence was intense with property damage and loss of life. South Boston is predominantly white with strong community identification. Other schools in Boston seemed to desegregate quietly with minimal problems, although nearby schools were closed if the violence from South Boston or Hyde Park threatened to invade.

G. DESEGREGATION OUTCOMES: Between 1968 and 1976 Boston had reduced racial isolation by 38 percent (1968 DI score of 70.7, 1976 DI score of 32.7). In 1973 (predesegregation year), the DI score was 63.9; one year later (year of desegregation) the score dropped to 50.6.

A. SCHOOL DISTRICT: Flint, Michigan

B. DEMOGRAPHICS: Population 193,447 No. of Students 44,019

No. of Schools 57 % Black 44 % Minority 46

C. DESEGREGATION EFFORTS: Flint voluntarily desegregated its schools in 1976.

D. PRINCIPAL DESEGREGATION STRATEGIES: Magnet-only.

E. BUSING AND WHITE ENROLLMENT CHANGE: No information on busing. In 1976, the year of desegregation, white school enrollment was 17,092. When this enrollment is compared to the 1974 figure (1975 data not available), it reflects a loss of 2,909 white students (14.5%).

F. COMMUNITY REACTION: No available information.

G. DESEGREGATION OUTCOMES: The post-implementation impact of Flint's desegregation efforts is beyond the scope of our data. However, examination of the district's 1974 DI score (64.6) and its implementation year (1976), DI score (56.7) suggests some success in reducing racial isolation.

A. **SCHOOL DISTRICT:** Grand Rapids, Michigan

B. **DEMOGRAPHICS:** Population 195,643 No. of Students 33,154

No. of Schools 72 % Black 25 % Minority 29

C. **DESEGREGATION EFFORTS:** Grand Rapids voluntarily desegregated it local schools in 1970.

D. **PRINCIPAL DESEGREGATION STRATEGIES:** Elementary schools were desegregated by open enrollment. Some new schools were also built. At the secondary school level, the desegregation plan called for a magnet-only strategy thus hoping to attract students to racially balanced schools.

E. **BUSING AND WHITE ENROLLMENT CHANGE:** No information on busing. White school enrollment remained relatively stable between 1969 (pre-) and 1971 (post-desegregation). In fact, statistics reveal a decline of only about 800 white students.

F. **COMMUNITY REACTION:** Although some scattered incidents of protesting took place, no organized effort to impede desegregation in Grand Rapids occurred.

G. **DESEGREGATION OUTCOMES:** Desegregation in Grand Rapids can best be characterized as incremental. Pre-desegregation DI scores are 65.8 (1968) and 59.8 (1969). Post-desegregation DI scores for 1970-74 and 1976 are, respectively, 57.2, 57.3, 53.1, 51.3, and 44.4. In sum, between 1968 and 1976 racial isolation in Grand Rapids has been decreased by 21.4 percent.

CASE PROFILE

A. SCHOOL DISTRICT: Lansing, Michigan

B. DEMOGRAPHICS: Population 141,447 No. of Students 31,472

No. of Schools 59 % Black 14 % Minority 22

C. DESEGREGATION EFFORTS: Desegregation came to secondary schools in Lansing in 1968. Eight years, and an interesting set of events, were to pass, however, before elementary schools were desegregated. After desegregating secondary schools, the local school board developed a plan for the desegregation of elementary schools. The plan, however, was never implemented. An anti-busing organization filed suit and initiated a recall petition. The board was recalled and replaced with anti-busing proponents. Promptly, the NAACP filed suit in 1972. Three years later (1975) the court reinstated the original board's cluster plan and ordered elementary school desegregation.

D. PRINCIPAL DESEGREGATION STRATEGIES: The plan called for massive rezoning in order to cluster elementary schools in a racially balanced pattern. In addition, plans were drawn for new school construction.

E. BUSING AND WHITE ENROLLMENT CHANGE: Before plan implementation about 1,300 children rode buses. In 1976, the number increased to about 2,500 for a 92 percent increase. System-wide, white school enrollment in Lansing decreased 18.7 percent between 1968 and 1976. With respect to elementary schools only, in 1974 white school enrollment figures were 11,847. In 1976 (year of desegregation) the number of students was 7,992, or a 32.5 percent decrease.

F. COMMUNITY REACTION: While it is safe to assume, by virtue of the recall petition, that at least a segment of the community was not too enthusiastic about desegregation, case evidence does not provide additional information on community reaction.

G. DESEGREGATION OUTCOMES: Despite some attempts to impede elementary school desegregation, Lansing's desegregation efforts have resulted in providing relatively racially balanced schools. In 1968 the DI score for elementary schools was 46.0; for secondary schools 31.0; and system-wide 40.0. In 1969, while the DI score for elementary schools remained the same, the secondary school index score dropped to 17.5. Finally, in 1976, year of implementation of elementary school desegregation, the elementary school DI score was 15.8 and the secondary school score had fallen to 7.6. In short, between 1968-1976, system-wide the DI score had fallen from 40.0 to 14.5.

A. SCHOOL DISTRICT: Pontiac, Michigan

B. DEMOGRAPHICS: Population 85,279 No. of Students 22,224

No. of Schools 35 % Black 37 % Minority 42

C. DESEGREGATION EFFORTS: Following a 1970 federal court order, Pontiac desegregated its elementary schools in 1971.

D. PRINCIPAL DESEGREGATION STRATEGIES: Pairing and/or clustering.

E. BUSING AND WHITE ENROLLMENT CHANGE: Between 1970 and 1971 a 175 percent increase in busing occurred. Prior to desegregation only about 3,500 students rode school buses. In 1971, this figure had risen to 9,619. White school enrollment decline during this same time period was 2,671.

F. COMMUNITY REACTION: Massive school desegregation resistance occurred in Pontiac--ten buses were fire-bombed, citizens were injured, and children were kept from school. Little support was offered by either the white community or the local school board which opposed the plan it created.

G. DESEGREGATION OUTCOMES: Desegregation came to Pontiac with fire and boycotts. Nevertheless, Pontiac has achieved a noticeable level of racial balance. In 1970, the white/minority DI score was 58.7. One year later the index had fallen to 14.9.

CASE PROFILE

A. **SCHOOL DISTRICT:** Minneapolis, Minnesota

B. **DEMOGRAPHICS:** Population 434,381 No. of Students 62,208

No. of Schools 116 % Black 11 % Minority 16

C. **DESEGREGATION EFFORTS:** Minneapolis desegregated in 1972 following a federal court order. The plan was formulated by the local school board after about 150 public meetings.

D. **PRINCIPAL DESEGREGATION STRATEGIES:** Primarily rezoning; at the elementary level some new construction and pairing.

E. **BUSING AND WHITE ENROLLMENT CHANGE:** No information on busing. White school enrollment declined by 12.8 percent (from 55,513 to 48,405) between 1971 and 1973.

F. **COMMUNITY REACTION:** Overall community response was relatively positive. Scattered instances of violence as well as demonstrations did evolve following plan implementation. The strong support of the superintendent and local media prevented trouble from expanding.

G. **DESEGREGATION OUTCOMES:** In 1971 (pre-desegregation) the DI score for the district was 53.0. In 1973 (one year after desegregation) the score was 47.4; the 1976 figure was 37.7.

CASE PROFILE

A. **SCHOOL DISTRICT:** Omaha, Nebraska

B. **DEMOGRAPHICS:** Population 330,703 No. of Students 61,061

No. of Schools 98 % Black 19 % Minority 22

C. **DESEGREGATION EFFORTS:** Omaha desegregated its schools in 1976 following court action initiated in 1973 by the Department of Justice. The plan was formulated by the school board following public hearings.

D. **PRINCIPAL DESEGREGATION STRATEGIES:** The plan devised by the school board called for pairing and clustering of elementary and junior high schools. For secondary schools, a feeder system and voluntary open enrollment in magnet schools were employed.

E. **BUSING AND WHITE ENROLLMENT CHANGE:** No information on busing. White school enrollment between 1974, two years before plan implementation, and 1976, year of implementation, declined by 12 percent (from 45,309 to 39,877).

F. **COMMUNITY REACTION:** There was little, if any, opposition to desegregation from the community. This lack of opposition was due largely to the joint efforts of a court appointed blue-ribbon committee and a religious organization. The two forces joined together and became known as Concerned Citizens for Omaha (CCFO). The CCFO divided itself into ten sectors--business, labor, human services agencies, etc.--and attempted to draw out "natural leaders" from each sector who then lobbied for school desegregation.

G. **DESEGREGATION OUTCOMES:** Through the efforts of CCFO and other community members, Omaha achieved substantial reductions in racial isolation between 1974 and 1976. In 1974, the district had a DI score of 59.9. Two years later, the implementation year, the score had been reduced to 26.5.

CASE PROFILE

A. **SCHOOL DISTRICT:** Clark County, Nevada (Las Vegas)

B. **DEMOGRAPHICS:** Population 273,288 No. of Students 74,952

No. of Schools 95 % Black 13 % Minority 18

C. **DESEGREGATION EFFORTS:** Clark County's elementary schools desegregated in 1972 after a court decision that the previous 1970 desegregation plan was not reducing racial isolation. The local school board was charged with formulating a new plan.

D. **PRINCIPAL DESEGREGATION STRATEGIES:** Seven elementary schools, which had previously been all black, were changed to sixth grade centers. This meant that black students would go to previously all-white schools for grades 1-5, then attend the sixth grade center.

E. **BUSING AND WHITE ENROLLMENT CHANGE:** Prior to 1972, approximately 14,000 students system-wide were transported. In 1972, ridership increased to about 20,000 for a 43 percent increase. White elementary student enrollment between 1971-1973 declined by 5,057 students. System-wide, however, white school enrollment increased by 1,097 students.

F. **COMMUNITY REACTION:** Whites protested the plan (there were two anti-busing groups), while blacks cautiously accepted the plan. The school board was split between pro- and anti-desegregation factions. In general, however, evidence suggests that the plan was implemented rather smoothly.

G. **DESEGREGATION OUTCOMES:** Regardless of whether white/minority racial balance is measured for only elementary schools or system-wide, Clark County's desegregation efforts have been relatively successful. For example, at the elementary level the DI declined from 47.4 in 1971 to 20.4 in 1973. Similarly, system-wide scores for the same two time points are, respectively, 35.4 and 19.6.

CASE PROFILE

A. **SCHOOL DISTRICT:** Forsyth County, North Carolina (Winston-Salem)

B. **DEMOGRAPHICS:** Population 214,348 No. of Students 47,502

No. of Schools 66 % Black 30 % Minority 30

C. **DESEGREGATION EFFORTS:** Forsyth County desegregated in 1971 following the filing of a suit by the NAACP. The desegregation plan was formulated by the local school board.

D. **PRINCIPAL DESEGREGATION STRATEGIES:** The plan implemented paired elementary schools along newly rezoned areas. A "feeder system" was created so that children in elementary schools could continue attending schools with their classmates.

E. **BUSING AND WHITE ENROLLMENT CHANGE:** Prior to implementation, about 22,300 students were bused. Following implementation students transported increased to 32,000 (a jump of approximately 40%). White student enrollment in 1970 (pre-desegregation) totaled 35,690. By 1972 (post-desegregation) white student losses totaled 3,226 (9% decline).

F. **COMMUNITY REACTION:** For the most part, the leaders of the white community as well as the larger population were opposed to the plan. Black attitudes toward the plan can be characterized as ambivalent. Scattered acts of violence erupted during desegregation implementation.

G. **DESEGREGATION OUTCOMES:** As measured by the index of desegregation, racial isolation in Forsyth County was reduced from 45.1 percent in 1970 to 15.4 percent in 1972.

CASE PROFILE

A. **SCHOOL DISTRICT:** Greensboro, North Carolina

B. **DEMOGRAPHICS:** Population 141,882 No. of Students 29,875

No. of Schools 46 % Black 36 % Minority 37

C. **DESEGREGATION EFFORTS:** Following a 1970 federal court order, Greensboro began to desegregate its schools in 1971. The plan was created by the school board.

D. **PRINCIPAL DESEGREGATION STRATEGIES:** Elementary schools were paired after some rezoning to achieve better racial balance. Secondary schools were rezoned.

E. **BUSING AND WHITE ENROLLMENT CHANGE:** In 1970, about 11,800 students were transported at school expense. In 1971, the number of students transported rose to approximately 16,550 for an increase of 40 percent. White school enrollment between 1970 and 1972 decreased 17.8 percent (from 21,554 to 17,722).

F. **COMMUNITY REACTION:** Boycotts and demonstrations were part of the community reaction to the desegregation process. However, as much of the desegregation literature suggests, these reactions were ineffective in preventing compliance with the court's directive to desegregate.

G. **DESEGREGATION OUTCOMES:** Examination of 1970 and 1972 desegregation index scores suggests that Greensboro was successful in reducing racial isolation from a relatively high mark of 81.4 to 37.4. According to the case literature, much of this success stems from Greensboro's well educated, affluent black community and the strong support from the head of the local NAACP as well as from the local Chamber of Commerce.

CASE PROFILE

A. **SCHOOL DISTRICT:** Mecklenburg County, North Carolina (Charlotte)

B. **DEMOGRAPHICS:** Population 354,656 No. of Students 80,865

No. of Schools 108 % Black 32 % Minority 33

C. **DESEGREGATION EFFORTS:** Charlotte-Mecklenberg desegregated in 1970 following the reopening of Swann in 1969. The desegregation plan was formulated by court appointed consultants.

D. **PRINCIPAL DESEGREGATION STRATEGIES:** Elementary schools--pairing and moderate rezoning; secondary schools--rezoning.

E. **BUSING AND WHITE ENROLLMENT CHANGE:** In 1969, about 23,600 students rode buses. Following implementation about 46,826 were transported, for an increase of 23,226 or 98 percent. White student enrollment one year prior to the major desegregation effort (1969) and one year after (1971) were, respectively, 59,530 and 54,926.

F. **COMMUNITY REACTION:** Scattered acts of violence as well as incidents of non-violent demonstrations are reported in the case literature.

G. **DESEGREGATION OUTCOMES:** In spite of reported attempts to prevent/delay desegregation, Charlotte-Mecklenberg has been quite successful in reducing racial isolation in local schools. For example, in 1969, the district had a DI score of 67.3; in 1971 the score had fallen to 13.0.

A. **SCHOOL DISTRICT:** Oklahoma City, Oklahoma

B. **DEMOGRAPHICS:** Population 319,798 No. of Students 62,550

No. of Schools 110 % Black 25 % Minority 30

C. **DESEGREGATION EFFORTS:** The Oklahoma City school system desegregated in 1972 following a court directive of the same year. The plan employed, called the "Finger Plan," was created by a "special master" appointed by the court. In 1977, the court declared Oklahoma City a unified school system.

D. **PRINCIPAL DESEGREGATION STRATEGIES:** The "Finger Plan" called for the use of only one desegregation technique--rezoning.

E. **BUSING AND WHITE ENROLLMENT CHANGE:** In 1971, prior to desegregation, about 9,279 students (from a population of 68,840 students) rode buses to school. Following plan implementation, total student enrollment was about 60,674 of which about 23,080 or 38 percent rode buses. Between 1971 and 1973 white school enrollment declined 24 percent from 49,571 to 37,461 students.

F. **COMMUNITY REACTION:** No information available.

G. **DESEGREGATION OUTCOMES:** Oklahoma City has made significant progress in its efforts to reduce racial isolation. In 1971, the district had a DI score of 66.6. Two years later the DI score for the district was 24.4.

CASE PROFILE

A. SCHOOL DISTRICT: Tulsa, Oklahoma

B. DEMOGRAPHICS: Population 329,927 No. of Students 72,311

No. of Schools 108 % Black 15 % Minority 20

C. DESEGREGATION EFFORTS: Desegregation efforts in Tulsa began in 1971 under a federal court order and were completed in 1973. The school board wrote the plan implemented.

D. PRINCIPAL DESEGREGATION STRATEGIES: Elementary schools were desegregated through open enrollment, pairing/clustering of seven schools, and closing one school. At the secondary level, rezoning was employed as the primary strategy. In addition, the plan called for one new school plus one magnet-mandatory school at the junior high level.

E. BUSING AND WHITE ENROLLMENT CHANGE: In 1970, about 7,621 students rode school buses. In the third year of the plan, about 13,817 rode buses for an increase of 6,196 or about 81 percent. The white school enrollment system-wide in 1970 was 64,077. In 1974, the number of white students decreased to 50,462 (21 percent loss).

F. COMMUNITY REACTION: In general, the white community tended to oppose the desegregation plan. After implementation, however, opposition dissipated. In contrast, the black community displayed greater opposition during implementation. While there is some evidence of scattered violence, reaction to the plan was manifested primarily in the form of boycotts and nonviolent demonstrations.

G. DESEGREGATION OUTCOMES: Tulsa appears to have altered only slightly the racial balance of its schools. The DI scores pre- (1970) and post-desegregation (1974) are, respectively, 67.1 and 55.6. In fact, as of 1977 only 21 of 76 elementary, 10 of 21 junior high schools, and 5 of 10 senior high schools were desegregated (10-40% minority).

A. **SCHOOL DISTRICT:** Providence, Rhode Island

B. **DEMOGRAPHICS:** Population 179,116 No. of Students 23,486

No. of Schools 46 % Black 22 % Minority 25

C. **DESEGREGATION EFFORTS:** Providence voluntarily desegregated its elementary schools in 1967. In 1970 and 1971, secondary schools were desegregated. The school board held public heatings during plan formulation.

D. **PRINCIPAL DESEGREGATION STRATEGIES:** Rezoning.

E. **BUSING AND WHITE ENROLLMENT CHANGE:** In 1968, about 16 percent of the students rode buses. In 1970, approximately 20 percent of the total student population were bused to school. White school enrollment system-wide declined 15 percent between 1969 and 1972 (from 20,492 to 17,406).

F. **COMMUNITY REACTION:** No information available.

G. **DESEGREGATION OUTCOMES:** Since Providence desegregated its elementary schools in 1967, the DI score for all schools in 1969 was 37.6. After attempts to desegregate secondary schools in 1970-71, the post-implementation DI score for the district was 28.8. By 1976, the score showed a further decline to 23.7.

CASE PROFILE

A. **SCHOOL DISTRICT:** Greenville County, South Carolina (Greenville)

B. **DEMOGRAPHICS:** Population 248,518 No. of Students 56,688

No. of Schools 96 % Black 23 % Minority 23

C. **DESEGREGATION EFFORTS:** Following a federal court decision, Greenville desegregated in 1970 under a plan formulated by the school board.

D. **PRINCIPAL DESEGREGATION STRATEGIES:** While rezoning was employed for both elementary and secondary schools, it was used principally for secondary schools. Elementary schools were primarily paired.

E. **BUSING AND WHITE ENROLLMENT CHANGE:** No information on busing. White school enrollment increased by 1,096 students (2%) between 1969 and 1971.

F. **COMMUNITY REACTION:** The effort in Greenville was unusual in that the district began to desegregate within two weeks after they were so ordered by the court. The desegregation process advanced quite smoothly. In fact, community residents pitched in and helped move desks, books, etc. in order to facilitate the process.

G. **DESEGREGATION OUTCOMES:** Greenville was quite successful in its desegregation effort. In 1969, the district had a DI value of 80.3. In 1971, one year after desegregation, the score had fallen to 12.2. Clearly, Greenville is a success story.

A. **SCHOOL DISTRICT:** Memphis, Tennessee

B. **DEMOGRAPHICS:** Population 623,102 No. of Students 131,185

No. of Schools 157 % Black 60 % Minority 60

C. **DESEGREGATION EFFORTS:** Following an appeal of a 1972 federal court order, Memphis desegregated local schools in 1973. The plan was formulated by the school board.

D. **PRINCIPAL DESEGREGATION STRATEGIES:** Elementary--pairing and clustering; secondary--rezoning.

E. **BUSING AND WHITE ENROLLMENT CHANGE:** Before the 1972 court order, Memphis did not have any school buses. About 8,697 students rode public transit buses to school in 1973. In the fall the number was 27,171. The court ordered the district to purchase about 60 buses and provide students with transportation. For both elementary and secondary schools, white student enrollment declined by 50 percent (from 67,242 to 33,905) between 1971 and 1974.

F. **COMMUNITY REACTION:** Although the school board formulated the desegregation plan, the board was, in general, opposed to desegregation per se, as was most of the white community. A two-day school boycott by approximately 40 percent of the student population (mostly white students) was staged, but little if any violence is documented. The strong support given by the local Chamber of Commerce to the desegregation process facilitated peaceful implementation.

G. **DESEGREGATION OUTCOMES:** Prior to 1972-73 desegregation, Memphis had, relatively speaking, a dual school system (DI score for 1971 was 88.4). By 1974, one year after implementation, the district's white/minority DI score was 51.0. Considerable progress has been made, but much work remains.

A. SCHOOL DISTRICT: Nashville-Davidson County, Tennessee

B. DEMOGRAPHICS: Population 488,026 No. of Students 87,623

No. of Schools 138 % Black 27 % Minority 27

C. DESEGREGATION EFFORTS: Nashville-Davidson was consolidated into a county-wide district in 1964. The district desegregated in 1971 following a court decision handed down in 1970. The desegregation plan was developed by HEW. A new superintendent was hired to help in the plan formulation and implementation.

D. PRINCIPAL DESEGREGATION STRATEGIES: At the elementary level, the HEW plan called for clustering, school closings, and rezoning. Elementary schools were broken down into grades 1-4 and 5th to 6th grade centers. Five out of 96 elementary schools closed. Rezoning was used exclusively for secondary schools.

E. BUSING AND WHITE ENROLLMENT CHANGE: The burden of compliance appears to rest with the black student population. Prior to desegregation, only about 17 percent of the minority students rode buses to school. After plan implementation, about 46 percent rode buses for an increase of 180 percent. Similar before and after figures for white students are 42 percent and 54 percent for an increase of about 16 percent. White student enrollment district-wide decreased by 14 percent (from 71,603 to 61,402) between 1970 and 1972.

F. COMMUNITY REACTION: Neither the white community in general nor white community leaders were satisfied with the plan. Random acts of violence erupted after the plan was announced. The black community, while somewhat more satisfied with the plan, became dissatisfied as the plan was implemented. The new superintendent as well as the media were strong supporters of the plan.

G. DESEGREGATION OUTCOMES: Despite the lack of commitment by the white community, efforts to reduce racial isolation in Nashville-Davidson were successful. In 1970, the district's DI score was 76.7. By 1972, the score had declined to 37.8. Case literature reveals, however, that 36 of 139 schools still remain all or nearly all white.

CASE PROFILE

A. SCHOOL DISTRICT: Austin, Texas

B. DEMOGRAPHICS: Population 268,779 No. of Students 55,720

No. of Schools 74 % Black 15 % Minority 36

C. DESEGREGATION EFFORTS: Following a federal district court decision, secondary school desegregation occurred in 1971. Elementary schools desegregated in 1973. While Austin's minority school population includes both a sizeable number of Hispanic and black students, desegregation efforts of the early 1970s concerned primarily black students. The district court ruled initially that the Hispanic population had not been discriminated against. Again in 1973 the trial judge found no discrimination against Mexican-American students but did acknowledge they were entitled to special recognition. Finally in a 1979 rehearing, the district court did find deliberate segregation of Hispanic children in a part of the district.

D. PRINCIPAL DESEGREGATION STRATEGIES: The 1971 plan was developed by the local board.

In order to desegregate its elementary schools, Austin used several techniques. Voluntary open enrollment (majority to minority transfers) was used. Several schools were either paired or clustered. Rezoning of the district was also used for all levels of the school system.

E. BUSING AND WHITE ENROLLMENT CHANGE: In 1969, about 2,250 students were provided transportation. By the fall of 1971, that number had increased to around 5,300. At both the elementary and secondary school level, white school enrollment increased following the major desegregation effort.

F. COMMUNITY REACTION: White community leaders were largely ineffective or neutral. With a predominantly opposed school board, the white community, in general, held somewhat negative attitudes about the plan. Scattered instances of violence erupted when the plan was implemented.

G. DESEGREGATION OUTCOMES: At the secondary level, Austin's DI scores for 1970 and 1972 were, respectively, 66.2 and 48.4. 1972 and 1974 elementary DI scores were 74.6 and 62.0. Overall, between 1970 and 1974 the DI scores dropped almost 20 percent, from 71.6 to 51.9. In short, Austin has achieved some success in reducing racial isolation. Yet, considerable segregation remains.

CASE PROFILE

A. **SCHOOL DISTRICT:** Corpus Christi, Texas

B. **DEMOGRAPHICS:** Population 182,182 No. of Students 44,826

No. of Schools 63 % Black 6 % Minority 58

C. **DESEGREGATION EFFORTS:** Corpus Christi desegregated local schools over a three-year period beginning with elementary schools in 1975 and ending with senior high schools in 1977. Desegregation impetus was a 1970 federal court order.

D. **PRINCIPAL DESEGREGATION STRATEGIES:** For elementary schools the primary strategy was school closings (4 of 38 schools). Some junior highs were closed, while the remaining ones were paired.

E. **BUSING AND WHITE ENROLLMENT CHANGE:** No information on busing. Between 1974 and 1976, white student enrollment declined from 17,052 to 13,952 (18%).

F. **COMMUNITY REACTION:** The school board and superintendent were very much against the desegregation effort. In fact, the plan was formulated by anti-busing forces. Litigation served as a means of noncompliance. Demonstrations and protests were staged.

G. **DESEGREGATION OUTCOMES:** Between 1974 and 1976 the district reduced racial isolation moderately. In 1974, the district's DI score was 57.4. Two years later the score was 34.4.

A. SCHOOL DISTRICT: Dallas, Texas

B. DEMOGRAPHICS: Population 807,057 No. of Students 155,364

No. of Schools 183 % Black 38 % Minority 48

C. DESEGREGATION EFFORTS: Dallas desegregated its schools in 1976 following a federal court order. The desegregation plan itself was formulated by community organizations and the local school board.

D. PRINCIPAL DESEGREGATION STRATEGIES: Magnet-mandatory schools at all levels; rezoning of individual school areas; and majority to minority transfers.

E. BUSING AND WHITE ENROLLMENT CHANGE: No information on busing. During the years of 1968 to 1976, the white school enrollment in Dallas declined by 44,963 students. Similarly, the total school enrollment has declined by 20,998. Minority school enrollment, however, increased over 23 percent during the eight-year period.

F. COMMUNITY REACTION: Due to the combined efforts of business and community leaders, desegregation efforts in Dallas were facilitated. Organized anti-desegregation groups, demonstrations, and/or violence were not present.

G. DESEGREGATION OUTCOMES: With a relatively high DI score of 84.4 in 1968, during the last eight years Dallas has reduced racial isolation 28.9 percent (the DI score in 1976 was 55.5). Case material indicates, however, that one all-black school, that is not close enough to another school for pairing, still exists.

A. **SCHOOL DISTRICT:** Houston, Texas

B. **DEMOGRAPHICS:** Population 1,087,451 No. of Students 227,330

No. of Schools 233 % Black 38 % Minority 55

C. **DESEGREGATION EFFORTS:** Desegregation efforts in Houston Independent School District span from 1970 to 1976. In 1970, equidistant zoning was employed to end racial isolation. One year later, however, because 27 elementary schools were uniracial, the court ordered pairing. In 1975, the district went back to court, showed pairing had not worked--had, in fact, promoted massive white student losses--and asked the court to unpair the schools. The court agreed. Renewed desegregation efforts began in 1975 (Phase I) and continued through 1976 (Phase II). Forty-two magnet schools were created. The district retained equidistant zoning and majority to minority transfers.

D. **PRINCIPAL DESEGREGATION STRATEGIES:** Magnet-mandatory schools with rezoning to enhance racial balance.

E. **BUSING AND WHITE ENROLLMENT CHANGE:** In 1974, 23,226 students were transported. In 1976, the figure was 25,886 for an increase of 2,660. In 1970, the white student enrollment system-wide was 119,181. By 1976, this figure diminished to 71,430 (40% decrease). The greatest single year loss occurred from 1970-71, when the number of white students decreased by 16,594. This can be compared to a white loss from 1974 to 1976 of only 10,000.

F. **COMMUNITY REACTION:** No information available.

G. **DESEGREGATION OUTCOMES:** Houston's DI score in 1970 (pre-desegregation) was 74.9. Six years later, after extensive litigation and various desegregation strategies, the index score dropped only 6.7 percent to 68.2.

A. SCHOOL DISTRICT: Newport News, Virginia

B. DEMOGRAPHICS: Population 138,177 No. of Students 30,587

No. of Schools 38 % Black 37 % Minority 38

C. DESEGREGATION EFFORTS: Following a 1971 court order, Newport News desegregated local schools in the same year under a plan developed by the school board.

D. PRINCIPAL DESEGREGATION STRATEGIES: The plan implemented in 1971 called for pairing and clustering of elementary schools with moderate rezoning. Children in K-2 stayed in their neighborhood schools, while those in grades 3-5 attended formerly all-white schools. For grades 6-7, white students were sent to formerly all-black schools. Rezoning was employed to desegregate secondary schools.

E. BUSING AND WHITE ENROLLMENT CHANGE: Children in grades K-3 were not bused to school. In 1970, about 5,000 white students rode buses. Following desegregation the number of white students riding buses increased to 10,000 (100%). Busing of minority students increased about 140 percent from approximately 3,000 to 7,200 students. White school enrollment pre- and post-desegregation declined slightly, from 19,928 to 18,854 (5%).

F. COMMUNITY REACTION: Primary support for the plan came from the school superintendent and the school administration. While the school board appeared to be opposed to the plan, there was little disruption in desegregation implementation.

G. DESEGREGATION OUTCOMES: As measured by the desegregation index, school officials in Newport News were quite successful in their desegregation efforts. The index dropped from its 1970 value of 80.3 to 24.0 in 1971.

CASE PROFILE

A. **SCHOOL DISTRICT:** Richmond, Virginia

B. **DEMOGRAPHICS:** Population 249,621 No. of Students 42,519

No. of Schools 75 % Black 71 % Minority 72

C. **DESEGREGATION EFFORTS:** Following a 1970 federal district court order, Richmond desegregated its schools in 1971. The school board's plan was implemented.

D. **PRINCIPAL DESEGREGATION STRATEGIES:** Elementary schools--pairing and rezoning; secondary schools--rezoning.

E. **BUSING AND WHITE ENROLLMENT CHANGE:** Prior to desegregation, Richmond bused about 5,416 students. Following desegregation efforts the number of students being bused increased to approximately 17,781 system-wide. The number of white students in the school system pre- (1970) and post-desegregation (1972) was, respectively, 17,041 and 12,901.

F. **COMMUNITY REACTION:** While the school board was generally opposed to the plan and the white community was not overly enthusiastic, violence or demonstrations as a reaction to school desegregation did not happen.

G. **DESEGREGATION OUTCOMES:** Richmond's pre-desegregation (1970) DI score was 58.4, indicating that in order to achieve racial balance almost 60 percent of the white or minority student, or some combination of both, would have to change schools. By 1972, one year after the major desegregation effort, the index score had dropped almost 30 percent to 28.9.

A. SCHOOL DISTRICT: Tacoma, Washington

B. DEMOGRAPHICS: Population 166,516 No. of Students 35,178

No. of Schools 63 % Black 11 % Minority 15

C. DESEGREGATION EFFORTS: Through voluntary efforts, Tacoma began desegregating its schools in 1968. The desegregation plan was completed in 1971.

D. PRINCIPAL DESEGREGATION STRATEGIES: Magnet-only schools; open enrollment.

E. BUSING AND WHITE ENROLLMENT CHANGE: Busing associated with the desegregation effort increased from about 20 to 30 percent of all students. White school enrollment between 1968 and 1972 decreased from 32,646 to 29,186 for a total loss of 3,460 students.

F. COMMUNITY REACTION: For the most part, neither the white nor black communities had any major objections to the voluntary desegregation effort.

G. DESEGREGATION OUTCOMES: As measured by the index of desegregation, Tacoma's efforts to reduce racial isolation have been moderately successful. In 1968, the index value was 38.2 percent; by 1972 (post-implementation) the value had dropped to 26.6 percent.

CASE PROFILE

A. **SCHOOL DISTRICT:** Milwaukee, Wisconsin

B. **DEMOGRAPHICS:** Population 717,124 No. of Students 125,694

No. of Schools 160 % Black 29 % Minority 34

C. **DESEGREGATION EFFORTS:** In 1966, Milwaukee was ordered to desegregate. Ten years were to pass, however, before significant desegregation efforts occurred. With a plan largely developed by court appointed consultants, Milwaukee initiated a three-phase desegregation effort in the fall of 1976. The court also required a committee of 100 members to advise in the formulation of the plan (elected from the district and appointed by the superintendent). A special master was hired by the court to oversee implementation. The third phase of the plan has not been initiated, as the case was remanded to a lower court on appeal.

D. **PRINCIPAL DESEGREGATION STRATEGIES:** The plan devised for Milwaukee was a magnet-only plan relying heavily on voluntary transfers.

E. **BUSING AND WHITE ENROLLMENT CHANGE:** In the 1975-76 school year 3,976 elementary (K-8) students rode buses. Secondary students transported totaled 2,687. By the 1977-78 school year 15,810 elementary and 13,465 secondary students were riding buses. Between 1974 and 1976 white school enrollment declined 16 percent (from 73,005 to 61,221).

F. **COMMUNITY REACTION:** For the most part neither the white nor the black communities supported the plan or its implementation. The school board was opposed to the plan. No organized effort, beyond court appeals, was undertaken to prevent desegregation.

G. **DESEGREGATION OUTCOMES:** In 1968, Milwaukee had a DI score of 79.0. Six years later (1974) the score was 72.0. In 1976, year of desegregation, the score was 51.3.

CASE PROFILE

A. **SCHOOL DISTRICT:** Racine, Wisconsin

B. **DEMOGRAPHICS:** Population 133,624 No. of Students 30,733

No. of Schools 46 % Black 13 % Minority 18

C. **DESEGREGATION EFFORTS:** Racine voluntarily desegregated between the years 1974 and 1976.

D. **PRINCIPAL DESEGREGATION STRATEGIES:** The desegregation plan called for magnet-mandatory schools with rezoning. The plan, which was district-wide, tended to bus black students into white suburbs.

E. **BUSING AND WHITE ENROLLMENT CHANGE.** About 10,500 students rode school buses in 1974. In 1975, about 12,000 were transported (14% increase). White school enrollment between 1974 and 1976 decreased by 10 percent (from 24,279 to 21,802).

F. **COMMUNITY REACTION:** The school board, divided but generally in favor, created a plan which was the least objectionable to the white community. There were no reported instances of violence or demonstrations from either the black or white communities.

G. **DESEGREGATION OUTCOMES:** Racine's desegregation efforts reduced racial isolation from a 1974 DI score of 37.9 to a 1976 DI score of 18.2 However, it should be noted that black children bore the brunt of the desegregation effort; they are the ones bused to the white suburbs.

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TABLE E1

SELECTED SCHOOL DISTRICT CHARACTERISTICS (N=52): 1968, 1970, 1972, 1974, 1976, 1968-1976 CHANGE

	1968						1970					
District Name	# Schools	School Enroll.	% Blk.	% Min.	DI	EMW	# Schools	School Enroll.	% Blk.	% Min.	DI	EMW
Birmingham, AL	102	66,434	51.4	51.4	92.3	6.0	95	61,994	54.6	94.6	75.6	15.8
Mobile, AL	92	75,464	41.7	41.7	88.8	9.1	83	69,791	44.5	44.6	69.6	24.4
Pasadena, CA	40	31,259	27.8	38.6	53.9	36.6	37	29,114	32.9	45.2	11.6	53.7
Richmond Unified, CA	62	43,123	24.2	32.4	50.4	42.6	61	41,492	27.5	36.2	44.9	44.4
San Francisco, CA	156	94,154	27.5	58.8	41.2	31.9	164	91,150	28.5	63.1	41.1	29.1
Stockton, CA	43	32,096	14.1	39.1	54.3	40.0	44	32,285	14.4	40.7	51.3	40.8
Colorado Springs, CO	42	30,336	6.3	16.5	51.9	57.5	46	33,025	6.2	16.4	43.6	62.9
Denver, CO	116	96,577	14.1	34.4	60.2	35.8	121	97,928	14.7	38.3	50.0	40.1
Broward County, FL	107	103,003	23.8	24.8	81.3	17.5	126	117,324	23.2	25.1	50.5	44.9
Dade County, FL	215	232,465	24.3	41.7	67.4	25.9	231	240,447	25.4	46.2	56.8	31.8
Duval County, FL	135	122,637	28.2	28.2	87.5	10.9	138	122,493	29.4	29.4	73.4	25.5
Escambia County, FL	76	46,875	27.6	28.0	78.2	20.9	70	46,987	28.6	29.5	51.1	48.4
Hillsborough County, FL	131	100,985	19.0	26.1	66.9	30.9	129	105,347	19.4	26.2	61.3	37.6
Leon County, FL	26	19,906	36.1	36.4	64.4	28.4	29	21,022	34.7	35.0	22.5	59.2
Orange County, FL	96	76,089	17.2	17.2	84.2	17.2	98	85,270	18.1	18.1	70.5	37.1
Pinellas County, FL	109	78,466	16.2	16.8	78.2	22.9	112	85,117	16.2	16.7	64.9	47.5
Polk County, FL	94	52,255	22.3	22.7	73.9	26.2	87	54,380	21.9	22.5	45.1	58.4
Volusia County, FL	60	32,275	22.7	22.7	74.1	24.8	53	32,712	22.1	22.1	26.5	71.0
Atlanta, GA	160	111,227	61.7	61.8	91.1	5.8	150	105,598	68.7	68.7	82.6	9.2
DeKalb County, GA	102	77,967	5.3	5.5	74.7	43.7	109	85,859	6.3	6.6	64.6	67.1
Peoria, IL	39	26,739	17.7	18.3	60.6	47.0	44	26,140	19.7	20.2	50.8	52.2
Evansville-Vanderburgh County, IL	41	34,036	8.4	8.5	71.1	53.4	40	33,779	8.7	8.8	58.2	58.7

TABLE E1 CONTINUED

District Name	1968 # Schools	1968 School Enroll.	1968 % Blk.	1968 % Min.	1968 DI	1968 EMW	1970 # Schools	1970 School Enroll.	1970 % Blk.	1970 % Min.	1970 DI	1970 EMW
Wichita, KS	116	68,391	13.0	15.1	65.3	42.6	113	63,811	14.7	17.2	43.7	57.7
Jefferson County, KY	147	141,058	20.3	20.4	79.4	24.4	162	146,651	19.8	19.9	82.3	21.4
Baltimore, MD	204	192,171	65.1	65.1	81.8	10.0	218	192,458	67.1	67.1	81.7	9.9
Prince George's County, MD	210	146,976	15.2	15.2	66.2	47.5	227	160,897	19.9	20.6	63.5	44.4
Boston, MA	196	94,174	27.1	31.5	70.7	29.6	204	96,696	29.8	35.9	72.4	25.7
Flint, MI	55	46,495	37.0	38.4	61.8	32.1	61	45,659	40.5	42.0	61.2	31.6
Grand Rapids, MI	65	33,504	21.6	24.0	65.8	32.5	72	34,533	22.0	25.1	57.2	40.5
Lansing, MI	58	30,728	11.3	16.5	39.9	66.9	64	32,559	12.5	19.1	29.1	70.8
Pontiac, MI	36	23,832	29.3	33.8	62.3	34.0	38	24,055	33.1	37.8	58.7	33.9
Minneapolis, MN	98	70,006	7.5	10.8	57.9	68.5	118	66,938	8.9	13.0	55.2	64.4
Omaha, NE	95	62,431	18.1	20.0	73.2	31.5	97	63,516	18.6	20.7	70.5	32.7
Clark County, NV	86	67,526	12.2	16.0	49.6	50.8	91	73,822	13.0	17.2	38.4	60.5
Forsyth County, NC	67	49,831	27.7	27.8	85.2	13.3	67	49,514	27.7	27.9	65.5	30.5
Greensboro, NC	46	32,094	31.2	31.5	81.7	15.4	46	32,291	32.9	33.3	81.4	17.4
Mecklenberg County, NC	112	83,111	29.2	29.5	72.5	24.9	109	82,507	30.8	31.1	16.6	64.8
Oklahoma City, OK	115	74,727	21.8	21.8	88.5	12.1	113	70,042	23.0	27.9	68.5	28.5
Tulsa, OK	106	79,990	12.2	17.0	65.2	36.4	108	77,822	13.7	17.7	67.1	36.9
Providence, RI	53	26,638	20.2	21.5	37.4	66.8	49	25,116	19.9	21.3	31.3	72.3
Greenville, SC	104	56,523	22.4	22.4	85.0	13.7	103	57,222	22.4	22.4	16.7	74.7
Memphis, TN	128	125,813	53.6	53.7	95.0	3.7	158	148,304	51.5	51.6	90.3	7.1
Nashville-Davidson County, TN	142	93,720	24.1	24.2	81.3	20.5	141	95,313	24.6	24.9	76.7	24.5
Austin, TX	67	51,760	15.0	34.4	75.4	21.9	74	54,974	15.1	35.6	71.6	24.6

TABLE E1 CONTINUED

District Name	1968						1970					
	# Schools	School Enroll.	% Blk.	% Min.	DI	EMW	# Schools	School Enroll.	% Blk.	% Min.	DI	EMW
Corpus Christi, TX	60	46,110	5.4	52.1	72.1	19.8	63	46,292	5.6	54.9	67.9	21.9
Dallas, TX	174	159,924	30.8	38.8	84.4	14.5	181	164,736	33.8	42.7	83.6	14.0
Houston, TX	225	246,098	33.3	46.7	80.4	15.4	230	241,139	35.7	50.6	74.9	18.4
Newport News, VA	38	30,304	36.7	37.8	86.5	11.5	39	31,581	35.8	36.9	80.3	15.9
Richmond, VA	66	43,115	68.2	68.6	86.2	7.9	83	47,988	64.2	64.5	58.4	20.5
Tacoma, WA	66	37,420	9.5	12.8	38.2	72.3	66	37,049	10.3	14.3	29.1	76.9
Milwaukee, WI	157	130,445	23.9	27.1	79.0	23.0	156	132,349	26.0	29.7	78.5	22.8
Racine, WI	45	30,964	11.2	15.8	55.5	57.6	47	32,020	12.2	17.3	51.8	58.4
MEAN	99.6	76,159	24.8	30.0	70.6	30.0	103.2	77,829	26.0	31.8	57.5	40.1

TABLE E1 CONTINUED

District Name	1972 # Schools	1972 School Enroll.	1972 % Blk.	1972 % Min.	1972 DI	1972 EMW	1974 # Schools	1974 School Enroll.	1974 % Blk.	1974 % Min.	1974 DI	1974 EMW
Birmingham, AL	92	57,729	59.4	59.5	76.1	14.1	95	52,681	63.3	63.4	78.7	12.2
Mobile, AL	82	66,263	45.7	45.8	52.5	33.0	84	64,373	45.7	45.8	55.1	32.0
Pasadena, CA	41	26,225	38.3	52.3	10.4	46.9	38	26,019	40.9	56.8	9.3	42.5
Richmond Unified, CA	62	39,952	30.3	39.9	43.0	43.5	62	37,560	33.0	43.4	41.1	42.6
San Francisco, CA	171	81,970	30.6	68.2	22.6	29.4	164	73,733	30.3	71.7	19.9	26.9
Stockton, CA	42	31,406	15.2	42.8	49.2	40.6	44	29,556	15.3	45.3	46.3	40.3
Colorado Springs, CO	48	35,853	6.2	16.7	36.0	66.7	51	34,709	5.9	16.3	32.5	70.3
Denver, CO	119	91,616	17.2	41.7	46.9	40.4	123	79,670	18.3	45.6	32.9	44.5
Broward County, FL	141	128,889	22.8	24.6	30.8	64.7	145	137,639	21.9	24.4	30.9	64.0
Dade County, FL	239	241,809	26.4	51.6	52.2	31.2	238	246,342	26.4	56.4	52.0	28.6
Duval County, FL	139	113,644	32.7	32.7	32.7	55.2	141	112,152	32.6	33.4	35.5	52.6
Escambia County, FL	71	47,947	28.1	29.1	51.9	48.2	66	48,187	27.6	29.2	51.0	48.0
Hillsborough County, FL	132	107,540	18.9	25.5	17.9	70.9	132	114,855	18.7	25.8	23.0	68.8
Leon County, FL	31	24,087	33.0	33.5	23.7	60.5	31	21,441	32.7	33.3	24.7	60.2
Orange County, FL	101	86,407	18.6	20.3	63.2	44.0	101	84,832	19.5	22.2	49.9	57.2
Pinellas County, FL	115	90,182	15.9	16.5	24.3	78.8	115	92,188	15.8	16.7	25.1	78.6
Polk County, FL	88	57,006	22.0	22.9	44.6	58.9	91	59,679	21.5	22.9	44.5	59.0
Volusia County, FL	53	34,578	22.2	22.2	25.0	71.3	55	35,772	21.3	21.3	26.7	71.5
Atlanta, GA	153	96,006	77.1	77.4	80.2	8.6	144	85,298	84.5	84.9	75.0	8.9
DeKalb County, GA	115	86,963	9.7	10.1	64.4	51.8	121	87,567	15.1	15.8	72.3	38.9
Peoria, IL	45	25,064	22.0	22.8	41.4	56.4	49	24,051	24.4	25.2	44.0	54.1
Evansville-Vanderburgh County, IL	39	31,937	9.5	9.8	26.6	85.9	36	30,088	10.2	10.5	25.4	86.4

TABLE E1 CONTINUED

District Name	1972						1974					
	# Schools	School Enroll.	% Blk.	% Min.	DI	EMW	# Schools	School Enroll.	% Blk.	% Min.	DI	EMW
Wichita, KS	109	57,254	16.4	19.8	16.9	77.4	108	53,222	17.7	21.8	16.8	75.3
Jefferson County, KY	169	144,875	19.9	20.0	82.0	21.8	174	135,525	21.6	22.1	78.2	24.6
Baltimore, MD	218	186,600	69.3	69.3	82.2	9.4	210	173,192	72.3	72.8	75.4	10.7
Prince George's County, MD	235	161,969	24.9	26.5	60.8	41.3	233	151,210	30.8	32.7	27.3	61.0
Boston, MA	202	96,239	33.0	40.4	70.8	24.9	187	85,826	37.0	47.6	50.6	33.1
Flint, MI	59	46,115	44.4	46.6	60.0	29.7	57	40,947	48.9	51.1	64.6	24.9
Grand Rapids, MI	72	33,890	25.6	29.1	53.1	40.4	71	31,691	28.2	32.6	51.3	41.0
Lansing, MI	58	31,404	14.1	22.5	22.4	72.3	58	30,556	16.3	25.6	19.4	70.3
Pontiac, MI	33	21,141	38.0	43.6	13.4	54.8	30	20,556	41.0	47.5	11.8	51.3
Minneapolis, MN	119	61,565	10.6	15.8	50.6	63.4	122	56,151	12.5	19.1	39.1	70.9
Omaha, NE	98	63,125	19.4	21.8	67.1	38.1	101	59,106	20.4	23.3	59.9	42.7
Clark County, NV	95	75,223	13.4	18.0	21.3	78.6	101	78,758	14.3	19.5	21.7	76.4
Forsyth County, NC	67	46,675	30.4	30.5	15.4	66.0	64	45,104	31.5	31.6	19.5	64.6
Greensboro, NV	46	28,321	36.8	37.4	14.1	60.8	47	27,809	39.7	40.4	17.1	57.4
Mecklenberg County, NC	107	79,813	32.4	32.8	13.9	65.0	105	77,596	33.9	34.5	13.3	63.9
Oklahoma City, OK	109	60,275	26.3	30.0	26.8	63.7	107	51,715	28.4	33.2	22.3	62.8
Tulsa, OK	108	71,190	15.4	20.1	59.7	49.8	107	65,889	17.0	23.4	55.6	49.6
Providence, RI	45	22,953	21.8	24.2	28.8	69.7	41	21,266	24.2	27.9	27.4	65.1
Greenville, SC	91	56,930	22.3	22.4	13.9	75.7	91	56,764	23.5	23.7	15.3	74.0
Memphis, TN	163	138,714	57.8	58.0	85.5	8.9	169	115,857	70.5	70.7	51.0	20.9
Nashville-Davidson County, TN	137	85,406	27.9	28.1	37.8	59.8	135	81,367	28.8	29.1	40.4	56.8
Austin, TX	75	55,861	15.0	37.0	61.5	31.9	79	58,457	14.9	37.1	51.9	37.7

TABLE E1 CONTINUED

District Name	1972						1974					
	# Schools	School Enroll.	% Blk.	% Min.	DI	EMW	# Schools	School Enroll.	% Blk.	% Min.	DI	EMW
Corpus Christi, TX	64	45,567	5.5	58.8	61.8	23.1	65	43,358	5.6	60.7	57.4	24.1
Dallas, TX	189	154,581	38.6	49.4	70.4	21.3	189	149,510	42.7	55.5	68.1	20.7
Houston, TX	232	225,410	39.4	56.4	72.7	17.6	239	211,369	42.0	61.5	70.5	17.0
Newport News, VA	38	30,195	36.3	37.6	24.0	57.2	40	30,276	37.2	38.3	23.9	56.3
Richmond, VA	83	43,825	70.2	70.6	28.9	26.6	72	39,458	76.1	76.5	29.0	21.4
Tacoma, WA	63	34,453	10.9	15.3	26.6	79.1	61	33,235	11.8	17.0	28.2	77.1
Milwaukee, WI	161	127,986	34.1	87.3	76.1	21.7	166	118,474	33.0	38.4	72.0	23.9
Racine, WI	47	31,309	18.3	72.1	47.2	59.6	47	30,143	13.7	19.5	37.9	61.8
MEAN	104.1	75,422	28.1	34.6	43.9	48.3	103.9	72,169	30.0	37.4	40.6	48.6

TABLE E1 CONTINUED

District Name	1976						1968-1976 Change					
	# Schools	School Enroll.	% Blk.	% Min.	DI	EMW	# Schools	School Enroll.	% Blk.	% Min.	DI	EMW
Birmingham, AL	96	50,913	68.5	68.8	80.0	11.0	-6	-15,521	17.1	17.4	-12.3	5.0
Mobile, AL	84	65,419	44.3	44.5	57.9	31.2	-8	-10,045	2.6	2.8	-30.9	22.1
Pasadena, CA	38	25,610	42.7	62.0	12.4	37.1	-2	-5,649	14.9	23.4	-41.5	0.5
Richmond Unified, CA	62	34,242	35.3	48.3	39.3	40.2	0	-8,881	11.1	15.9	-11.1	-2.4
San Francisco, CA	156	67,704	29.1	72.4	19.8	26.2	0	-27,450	1.6	13.6	-21.4	-5.7
Stockton, CA	45	27,032	16.4	54.8	37.7	36.6	+2	-5,064	2.3	15.7	-16.6	-3.4
Colorado Springs, CO	54	34,149	6.2	17.6	27.6	71.6	+12	+3,813	-0.1	1.1	-24.3	14.1
Denver, CO	122	74,783	20.8	51.9	18.3	45.7	+6	-21,794	6.7	17.5	-41.9	9.9
Broward County, FL	148	136,576	21.5	24.7	34.8	61.3	+41	+33,573	-2.3	-0.1	-46.5	43.8
Dade County, FL	257	240,023	27.9	59.0	52.4	26.8	+42	+7,558	3.6	17.3	-15.0	0.9
Duval County, FL	135	109,536	33.3	34.7	38.2	50.1	0	-13,101	5.1	6.5	-49.3	39.2
Escambia, FL	67	46,420	27.6	29.2	42.8	51.7	-9	-455	0.0	1.2	-35.4	30.8
Hillsborough County, FL	132	114,911	19.6	24.4	26.1	68.8	+1	+13,926	0.6	-1.7	-40.8	37.9
Leon County, FL	33	22,202	33.6	34.5	23.0	58.7	+7	+2,296	-2.5	-1.9	-41.4	30.3
Orange County, FL	108	83,972	20.7	23.9	47.5	56.5	+12	+7,703	3.5	6.7	-36.7	39.3
Pinellas County, FL	113	89,787	16.4	17.2	27.9	76.3	+4	+11,321	0.2	0.4	-50.3	53.4
Polk County, FL	95	60,978	22.0	23.2	41.4	58.7	+1	+8,723	-0.3	0.5	-32.5	32.5
Volusia County, FL	55	35,607	21.6	22.6	23.0	71.5	-5	+3,332	-1.1	-0.1	-51.1	46.7
Atlanta, GA	136	82,438	88.3	88.2	73.2	7.3	-24	-28,789	26.6	26.4	-17.9	1.5
DeKalb County, GA	118	85,162	20.4	21.5	73.1	32.0	+16	+7,195	15.1	16.0	-1.6	-11.7
Peoria, IL	47	23,372	26.9	28.4	44.5	52.8	+8	-3,367	9.2	10.1	-16.1	5.8
Evansville-Vanderburgh County, IL	36	28,200	10.9	11.3	24.9	85.3	-5	-5,836	2.5	2.8	-46.2	31.9

TABLE E1 CONTINUED

	1976						1968-1976 Change					
District Name	# Schools	School Enroll.	% Blk.	% Min.	DI	EMW	# Schools	School Enroll.	% Blk.	% Min.	DI	EMW
Wichita, KS	107	49,779	18.6	23.6	15.8	73.3	-9	-18,612	5.6	8.5	-49.5	30.7
Jefferson County, KY	165	118,718	24.7	25.2	21.5	69.0	+18	-25,340	4.4	4.8	-57.9	44.6
Baltimore, MD	196	153,699	76.5	77.2	67.1	11.8	-8	-38,472	11.4	12.1	-14.7	1.8
Prince George's County, MD	234	143,720	37.5	40.2	28.6	52.8	+24	-3,256	22.3	25.0	-37.6	5.3
Boston, MA	154	73,782	42.6	56.0	32.7	36.4	-42	-20,392	15.5	24.5	-38.0	6.8
Flint, MI	54	38,532	53.0	55.6	56.7	26.6	-1	-7,963	16.0	17.2	-5.1	-5.5
Grand Rapids, MI	77	30,277	29.5	35.1	44.4	43.8	+12	-3,227	7.9	11.1	-21.4	11.3
Lansing, MI	56	29,241	18.3	28.7	14.4	69.3	-2	-1,497	7.0	12.2	-25.5	2.4
Pontiac, MI	32	20,984	42.4	49.4	12.5	49.3	-4	-2,848	13.1	15.6	-49.8	15.3
Minneapolis, MN	118	50,988	15.4	23.0	37.7	66.8	+20	-19,018	7.9	12.2	-20.2	-1.7
Omaha, NE	99	53,395	22.1	25.3	26.5	67.7	+4	-9,036	4.0	5.3	-46.7	36.2
Clark County, NV	107	82,881	14.8	21.0	21.6	72.5	+21	-15,355	2.6	5.0	-28.0	21.7
Forsyth County, NC	64	44,694	33.3	33.6	22.4	61.8	-3	-5,137	5.6	5.8	-62.8	48.5
Greensboro, NC	47	28,316	42.5	43.6	20.9	53.1	+1	-3,778	11.3	12.1	-60.8	37.7
Mecklenberg County, NC	109	79,731	35.6	36.5	14.8	61.0	-3	-3,380	6.4	7.0	-57.7	36.1
Oklahoma City, OK	100	47,511	31.4	38.3	22.5	57.5	-15	-27,216	9.6	16.5	-66.0	45.4
Tulsa, OK	104	61,147	18.8	24.9	56.4	47.0	-2	-18,843	6.6	7.9	-8.8	10.6
Providence, RI	38	19,893	25.4	32.1	23.7	62.4	-15	-6,745	5.2	10.6	-13.7	-4.4
Greenville, SC	94	55,254	24.3	24.7	16.1	72.9	-10	-1,269	1.9	2.3	-68.9	59.2
Memphis, TN	173	121,155	70.6	70.6	56.2	18.9	+45	-4,658	17.0	16.9	-38.8	15.2
Nashville-Davidson County, TN	135	77,649	30.4	30.9	42.2	53.5	-7	-16,071	6.3	6.7	-39.0	33.0
Austin, TX	81	58,088	16.0	40.2	46.2	39.4	+14	6,328	1.0	5.8	-29.2	17.5

TABLE E1 CONTINUED

District Name	1976						1968-1976 Change					
	# Schools	School Enroll.	% Blk.	% Min.	DI	EMW	# Schools	School Enroll.	% Blk.	% Min.	DI	EMW
Corpus Christi, TX	59	40,538	5.8	65.6	34.4	29.1	-1	-5,572	0.4	13.5	-37.7	9.3
Dallas, TX	181	138,926	46.7	61.9	55.5	23.9	+7	-20,998	15.9	23.1	-28.9	9.4
Houston, TX	251	209,843	43.1	66.0	68.2	16.7	+26	-36,255	9.8	19.3	-12.2	1.3
Newport News, VA	38	29,610	38.6	40.1	27.8	53.5	0	-694	1.9	2.3	-58.7	42.0
Richmond, VA	70	37,055	80.3	80.8	29.5	17.6	+4	-6,060	12.1	12.2	-56.7	9.7
Tacoma, WA	60	32,017	12.7	19.0	26.6	75.3	-6	-5,403	3.2	6.2	-11.6	3.0
Milwaukee, WI	161	108,798	37.5	43.7	51.3	35.1	+4	-21,647	13.6	16.6	-27.7	12.1
Racine, WI	42	27,601	15.0	21.0	18.2	75.4	-3	-3,363	3.8	5.2	-37.3	17.8
MEAN	102.8	69,282	31.9	40.3	36.2	49.1	3.1	-7,544	7.0	10.3	-34.5	19.1